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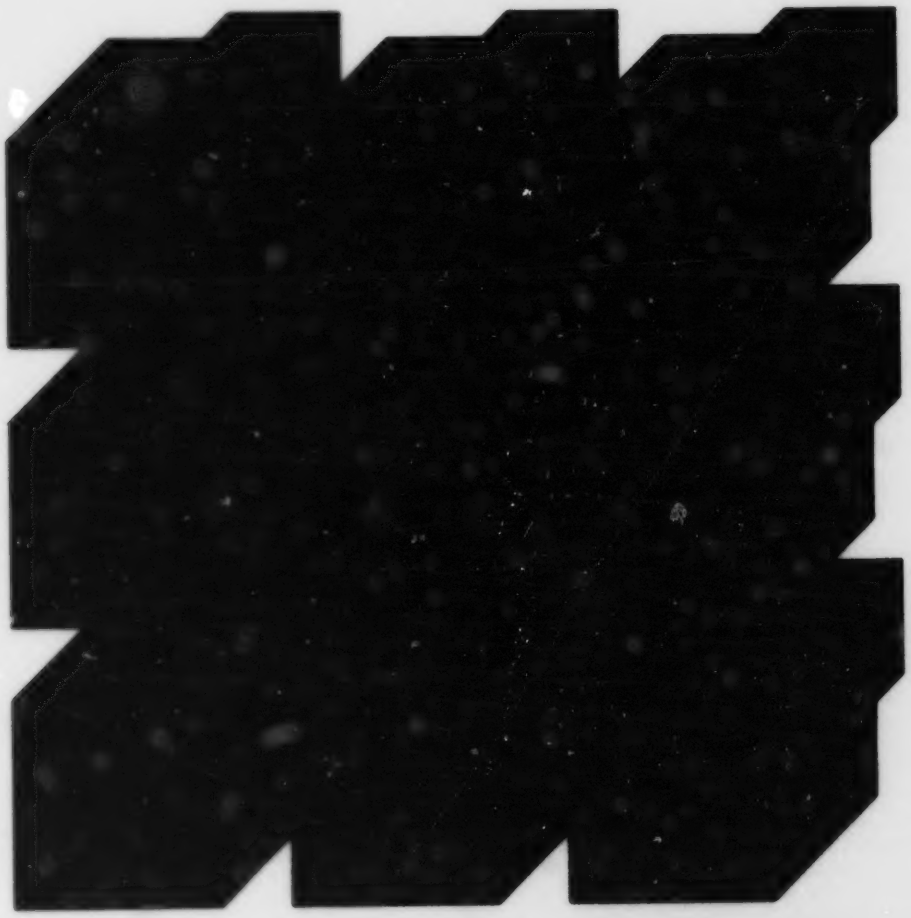
DISCUSSION PAPER NO. 254

The Manufacturing Sector in Manitoba

By N. E. Cameron
J. M. Dean and
W. S. Good



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RÉSUMÉ

Pour le Manitoba, le secteur de la fabrication est moins important que pour l'ensemble du Canada, mais relativement aux provinces des Prairies, c'est au Manitoba que ce secteur a le plus d'ampleur. Il n'y est pas plus diversifié cependant qu'en Saskatchewan ou en Alberta et, bien sûr, il y est moins diversifié que dans l'ensemble du Canada. La part du secteur de la fabrication constituée de petites entreprises a augmenté au Manitoba au cours des années 1970, alors qu'elle est demeurée constante pour le Canada. Cette province ne semble présenter aucun avantage manifeste sur les autres en ce qui concerne les coûts unitaires de la main-d'oeuvre : le taux des salaires y est plus faible dans de nombreuses professions, mais il semble aussi que la productivité de la main-d'oeuvre y soit inférieure. La production manufacturière du Manitoba vise de plus en plus l'exportation hors de la province, mais 10 pour cent seulement de cette production est exportée hors du Canada.

Une enquête détaillée menée par téléphone auprès des entreprises de deux secteurs industriels particuliers (vêtement et matériel de transport) a fourni des réponses à des questions plus précises. Le tableau de ces deux secteurs manitobains de la fabrication nous permet de dégager les caractéristiques suivantes :

- les entreprises de chaque industrie vont de très anciennes à très jeunes, mais surtout, elles sont de tailles très petites à

moyennes; la croissance récente de ces secteurs est attribuable au moins autant à l'expansion des entreprises existantes qu'à la création d'entreprises nouvelles;

- la production se vend surtout à l'extérieur de la province, et beaucoup d'entreprises n'écoulent dans la province à peu près rien de leur production; la plupart des entreprises exportent à l'extérieur du Canada, mais ces exportations ne constituent qu'une faible proportion du total des ventes et le principal marché extérieur est celui des autres provinces de l'Ouest, surtout en ce qui concerne l'industrie du matériel de transport;

- les entreprises du Manitoba sont situées dans la province pour des raisons personnelles et non commerciales et tous les autres motifs réunis ont beaucoup moins d'importance. La principale raison suivante en importance est l'accès aux marchés; on n'a mentionné que rarement le coût comparatif des salaires et les autres raisons relatives aux coûts. Les raisons invoquées pour l'expansion au Manitoba ont trait davantage au facteur coûts, mais pas tellement; la plupart des entreprises qui ont pris de l'expansion récemment n'ont même pas envisagé de localiser leur capacité nouvelle à l'extérieur du Manitoba;

- les entreprises du Manitoba ont tendance, sur le plan technologique, à se classer dans la moyenne ou un peu au-dessus de leurs rivales; les grandes entreprises se considèrent comme plus progressives que les petites;

- les entreprises du Manitoba donnent naissance à un nombre impressionnant d'autres entreprises par la voie des retombées; le tiers des répondants ont en effet créé des entreprises nouvelles par la voie des retombées; en moyenne, environ trois chacune. Chose étonnante, les entreprises les plus avancées sur le plan technologique semblent engendrer très peu de retombées de ce type;

- presque tous les répondants sont des entreprises indépendantes plutôt que des succursales ou des filiales; les entreprises indépendantes ont moins recours aux programmes d'aide des gouvernements et beaucoup plus aux bénéfices non répartis pour financer leur expansion. Elles se considèrent aussi comme plus modernes que les autres entreprises de leur industrie;

- très peu d'entreprises indépendantes sont devenues des filiales et inversement.

La plupart des entreprises étudiées ne manifestent ni grand besoin ni grand désir de recourir aux programmes d'aide gouvernementale. Pourtant, ces derniers pourraient se révéler utiles, surtout lorsqu'il s'agit d'améliorer la capacité d'exportation de beaucoup d'entreprises et d'améliorer leur accessibilité à certains facteurs clés, par exemple la main-d'oeuvre spécialisée. Pour les secteurs composés surtout de petites entreprises, toute politique proposée devrait être de conception simple; il n'en faudrait pas non

plus un grand nombre et il serait important que les politiques soient appliquées de façon équitable pour toutes les entreprises d'une même industrie.

SUMMARY

The manufacturing sector is less important to Manitoba than to Canada as a whole, but much more important than in the other prairie provinces. The sector is no more diversified in Manitoba than in Saskatchewan or Alberta, however, and, of course, is less diversified than for Canada as a whole. The small business share of the manufacturing sector has increased in Manitoba over the 1970's while it has stayed constant for Canada. There is no clear advantage for Manitoba relative to other provinces in unit labour costs: wage rates are lower in many occupations, but the evidence also suggests that labour productivity is less. Manitoba's manufacturing output is increasingly for export outside the province, but only 10 percent is exported outside Canada.

A detailed telephone survey of firms in two particular industrial sectors (clothing and transportation equipment) provided answers to more specific questions. The picture of Manitoba manufacturing that emerges from these two sectors has the following major features:

- the firms in each industry range from very old to very young and primarily very small to medium-sized. Recent growth of these sectors is due at least as much to expansion of the existing firms as to entry of new firms.

- output is marketed mainly outside the province. Many of the firms sell almost none of their output in the province. Most of the firms export outside Canada, but these exports make up only a small share of total sales. The major market outside Manitoba is in the other western provinces, especially for the transportation equipment industry.

- Manitoba firms located in the province for personal, non-business reasons. All other reasons taken together are much less important. Access to markets is the next most important. Comparative wage costs and other cost-related reasons were seldom mentioned. Reasons for expansion in Manitoba give more emphasis to cost factors, but not much. The majority of firms that have expanded recently did not even consider locating their new capacity outside Manitoba.

- Manitoba firms tend to see themselves as about average or perhaps a little ahead of their competitors technologically. Larger firms see themselves as more progressive than the smaller firms.

- Manitoba firms generate an impressive number of other firms by spinoffs. One third of the respondents have generated new firms by spinoff; on average, about three each. Surprisingly, the most technologically advanced firms seem to generate very few spinoffs.

- almost all of the respondents are independent firms rather than branch plants or subsidiaries. The independent firms make less use of government assistance programs and much more use of retained earnings to finance expansion. They also see themselves as more sophisticated than other firms in their industry.

- there has been very little cross-over of firms from independent to subsidiary status or vice-versa.

Most of the firms surveyed do not seem to be either in great need or particularly sensitive to government assistance programs. Such programs might help though, especially in improving the export capability of many companies and increasing their accessibility to certain key inputs such as skilled labour. For those sectors consisting mainly of small firms, any policies proposed should be simple in concept and few in number, as well as being neutral in their administration between the firms in each industry.

INTRODUCTION

This report was commissioned by the Economic Council of Canada as a background study for a broad analysis of the Western Canadian economy and its medium to long term prospects. To date, the main strength of the Western economy has been based on exploitation of its resources, many of which are exhaustible in the near future. The problem faced by Western Canada and its residents is how to replace the resource exploitation activity when resource exhaustion occurs. Some feasible options are with tertiary activity, with different primary activity, with outmigration, or with more secondary manufacturing activity.

Manitoba manufacturing deserves special study in this context for several reasons. The Manitoba economy has few natural resources relative to the other western provinces, so it has faced the problem of supplementing its resource extraction income much earlier than Saskatchewan and Alberta. In other respects, however, the prairie economies are very similar: population density, urban concentration, transport networks, political institutions and traditions, and economic policies. Manitoba has had a significant, diversified manufacturing sector, both in Winnipeg and elsewhere in the province, for decades. This sector has been growing more rapidly than many other sectors of the economy over the last thirty years, so that Manitobans have not needed to migrate out in large numbers despite rapid increases in labor productivity (and, therefore, shrinking employment per unit of output) both in manufacturing and agriculture.

This report is intended (a) to describe this manufacturing sector as it now exists, and (b) to explain how it has come to be and what its future prospects are. These answers are provided to shed light on two policy questions: what can be done by government policy to further the success and alleviate the problems of this sector in Manitoba, and can its successes be duplicated in other provinces in Western Canada?

While stimulation of the manufacturing sector has typically been regarded as a primary means for achieving government policy objectives, care must be taken, however, not to overstate the ability of manufacturing to impact these objectives since the sector accounts for only 13% of employment, 14% of gross domestic product and 9% of investment in Manitoba.

OUTLINE

Section 1 of this report is a straightforward statistical survey of the Manitoba manufacturing sector from standard statistical sources, comparing the Manitoba manufacturing sector to the Canadian manufacturing sector and to that of other provinces.

The remainder of this report is based on a more detailed survey of firms in two particular manufacturing industries. Analysis of the responses for these two sectors is in two parts. The first is mainly descriptive. It outlines the size distribution of firms, their market areas, their rates of growth in the recent past, their future prospects as seen by the firms themselves, their reasons for locating in Manitoba and for locating their recent expansions in Manitoba, their technological level relative to other firms, the speed with which they adopt new technologies, and the rate at which they have generated spin-offs of new manufacturing firms. This is reported in Section 2.

The second part of the analysis of firms in the clothing and transportation equipment industries deals with the role of and constraints on entrepreneurship. This broad topic is covered in Section 3.

Section 4 discusses a number of policy prescriptions which provide either marketing, production, or financial stimulation for manufacturing companies, and their likely impact on the growth of the sector within the province.

SECTION 1

OVERVIEW OF MANITOBA MANUFACTURING

1.1 IMPORTANCE OF THE MANUFACTURING SECTOR

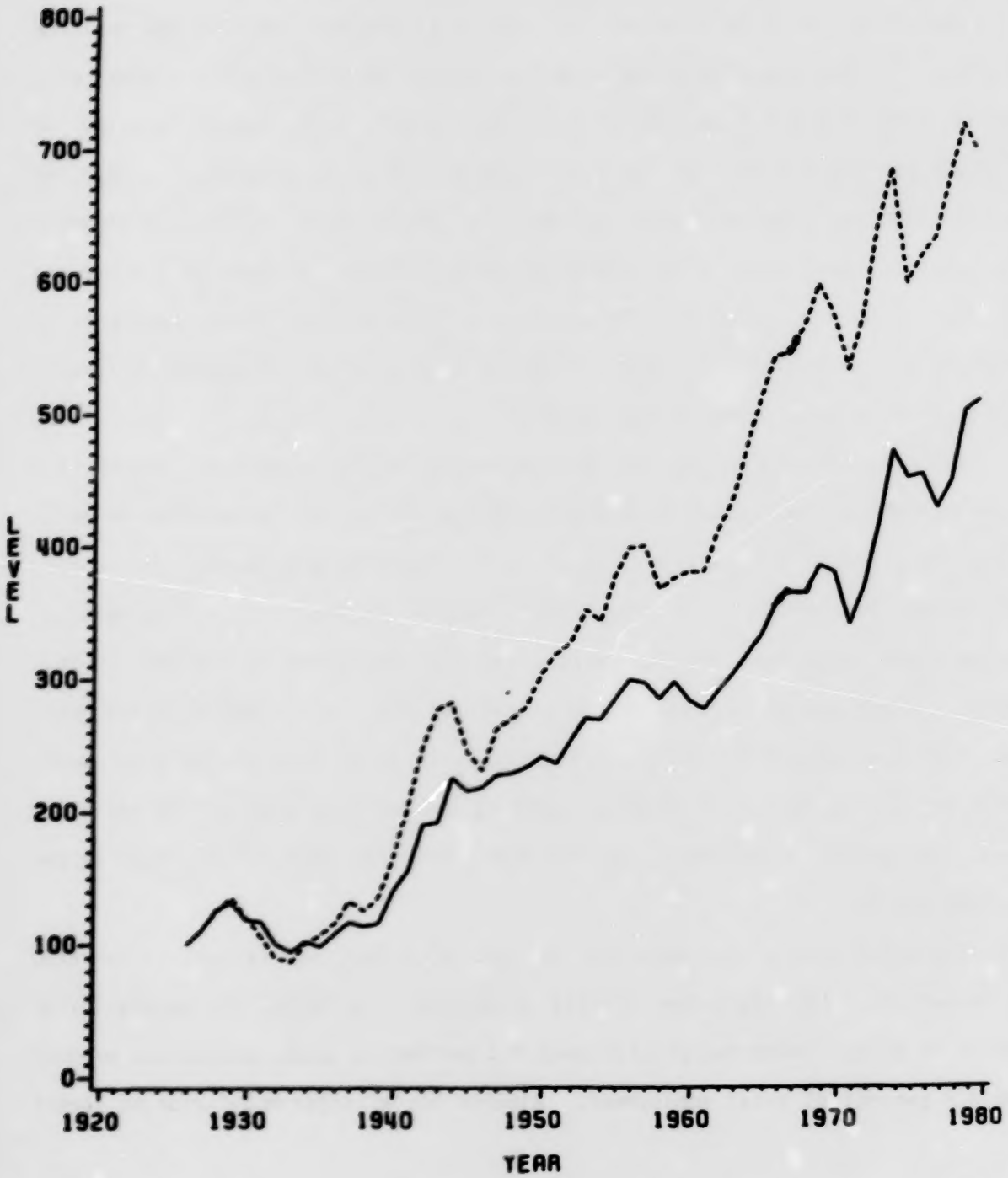
Manufacturing is an important but far from dominant part of the Manitoba economy. In 1980, manufacturing output accounted for 14 percent of gross provincial product and 9.4 percent of total employment. This represents output of $12,000,000 and 43,027 jobs in a province with a gross provincial product of $4.4 billion and total employment of 460,000. Furthermore, in the past 20 years the relative importance of the manufacturing sector has increased by 1.5 percent of gross provincial product. The purpose of this section of the report is to describe the manufacturing sector in Manitoba as well as to isolate the major trends which have occurred in the sector.

The manufacturing sector has been growing steadily in Manitoba though at a slower pace than for Canada as a whole. The growth of net value added in manufacturing since 1926 is shown in Chart 1 for Manitoba and Canada. By itself, this is not very enlightening data. Note, however, in Chart 2, that the manufacturing sector has been growing faster than all industries in Manitoba. This pattern is emphasized by breaking all industries down into a number of the major sectors. The pattern for different industries is illustrated in Chart 3. Manufacturing has become a more important part of the Manitoba economy. On the other hand, the growth of manufacturing has been less than that of the much larger service sector.

The importance of the manufacturing sector in Manitoba is best illustrated by comparison with the other Prairie Provinces. In 1980, the manufacturing sector in Saskatchewan represented only 6.2 percent of gross provincial product and 3.6 percent of total employment. Alberta has a larger manufacturing sector

CHART 1

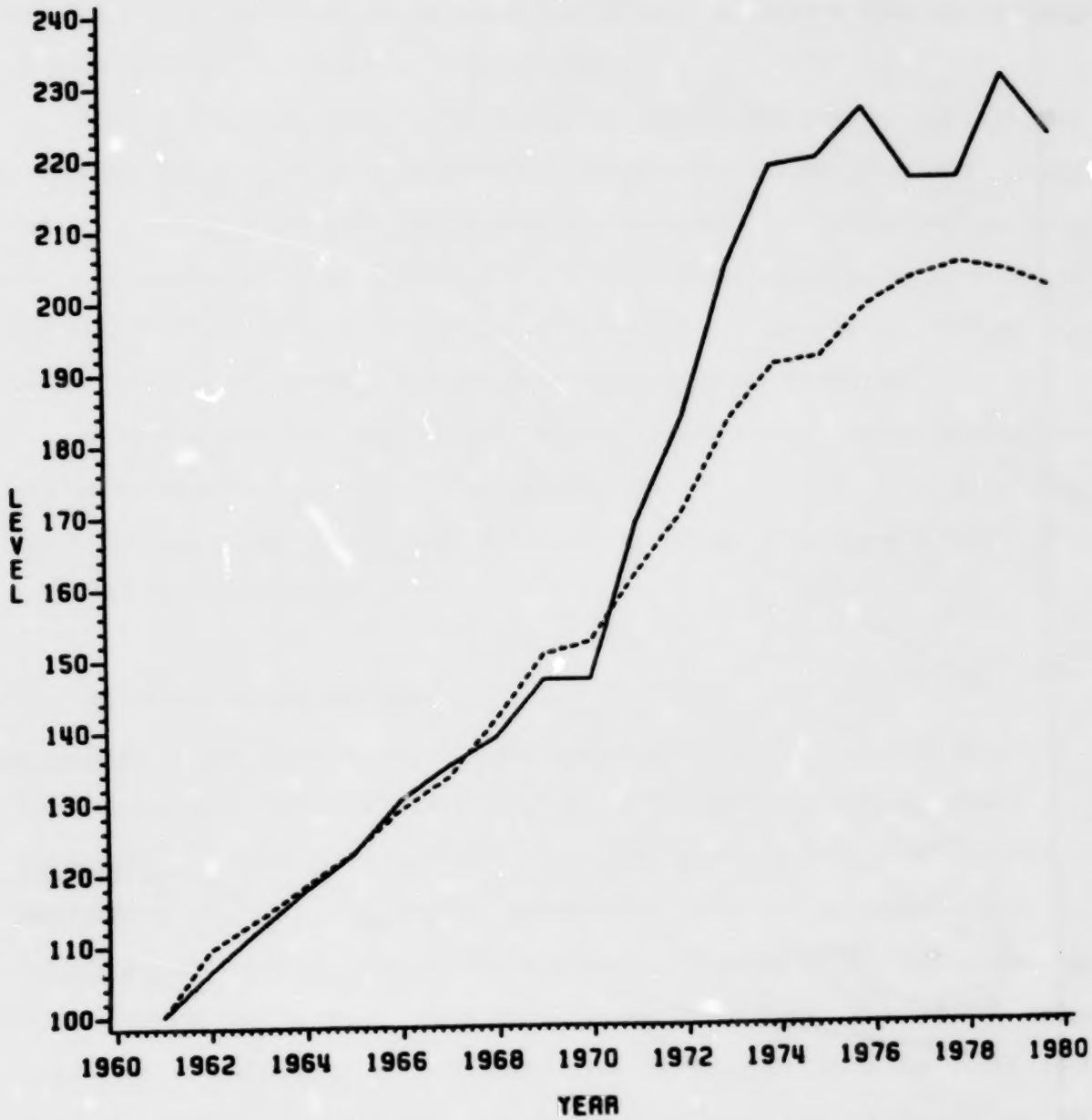
NET VALUE ADDED IN MANUFACTURING
.MANITOBA AND CANADA
1926-1980
CONSTANT DOLLARS
1926-100 INDEX



SOLID LINE IS MANITOBA
DOTTED LINE IS CANADA

CHART 2

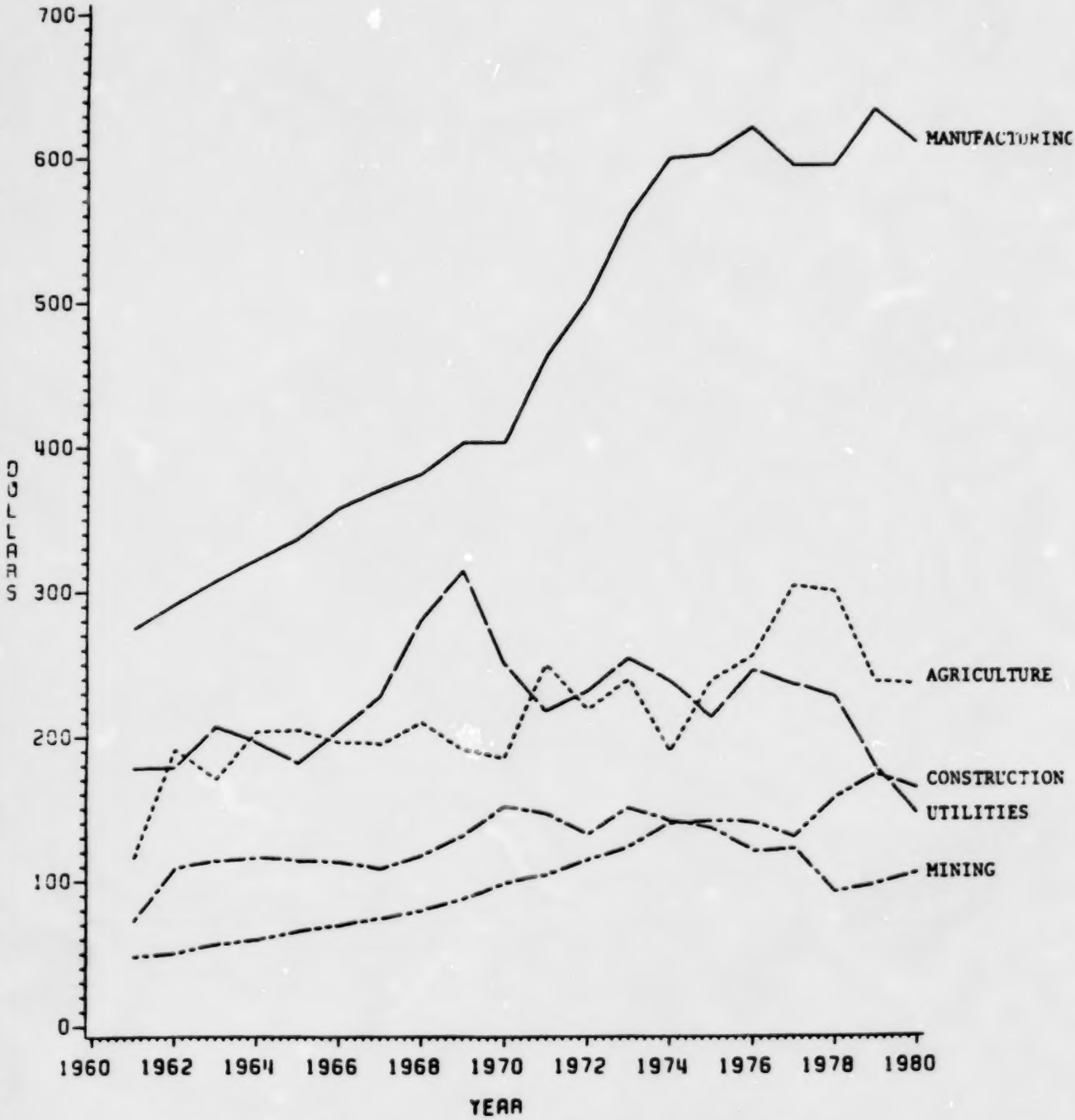
GROSS DOMESTIC PRODUCT
MANUFACTURING AND ALL INDUSTRIES
MANITOBA
1961=100



SOURCE: THE PROVINCIAL ECONOMIES: 1961-1980 DATA
CONFERENCE BOARD OF CANADA
SOLID LINE IS MANUFACTURING
DOTTED LINE IS ALL INDUSTRIES

CHART 3

GROSS DOMESTIC PRODUCT BY SECTOR
MANITOBA
000,000 DOLLARS
1961-1980
1971=100



SOURCE: THE PROVINCIAL ECONOMIES: 1961-1980 DATA
CONFERENCE BOARD OF CANADA

than Saskatchewan, but it is still significantly smaller than in Manitoba; it accounts for 9.6 percent of gross provincial product and 5.5 percent of total employment. Saskatchewan and Manitoba's manufacturing sectors have been growing in importance in those two provincial economies.

Alberta's manufacturing sector has grown faster, but even so has just kept pace with the growth in the provincial economy. For Canada as a whole, manufacturing output represents 21.9 percent of gross domestic product and accounts for 12.6 percent of total employment. This represents total national output of $25,465,000,000 and total employment of 1,346,160. Consequently, Manitoba accounts for only 2.4 percent of total manufacturing output in Canada.

While the Prairies remain primarily a staples producing region, manufacturing is an important segment of the Manitoba economy, and appears to be a major factor in explaining the relative stability of the Manitoba economy relative to the other western provinces.

1.2 WHO AND WHERE ARE THE FIRMS

Table 1 and Table 2 indicate the distribution of firm size by industry. First consider the industry distribution of the manufacturing sector in Manitoba. All 2-digit SIC industry categories are represented by the 1529 establishments in the province in 1982. The largest industries are food and beverages, and printing and publishing which account for 14.6 and 14.5 percent of the total number of establishments respectively. This result is not surprising. However, the large proportion of companies in such industries as transportation equipment (4.6 percent), clothing (6.1 percent) and furniture (9.2 percent) is surprising. No single industry dominates the manufacturing sector. The sector is not an anomaly caused by the presence of a few large firms in a small number of industries. In fact it contains only 8 firms in all industries which employ more than 500 employees and only 4 which employ more than 1000 employees.

TABLE 1

Number of Establishments By Industry and Employment Size
Manitoba and Canada
1982

Industry		Number of Employees					
		0-19	20-49	50-99	100-199	199+	Total
Food and Beverage	Man.	173	23	12	7	8	223
	Can.	3543	571	207	147	173	4641
Tobacco Products	Man.	-	-	-	-		-
	Can.	12	1	1	-	3	17
Rubber and Plastic	Man.	28	6	1	1	-	36
	Can.	923	169	68	37	37	1234
Leather	Man.	8	5	2	-	1	16
	Can.	303	97	46	33	16	495
Textile	Man.	38	7	3	-	-	48
	Can.	825	149	63	47	43	1127
Knitting mills	Man.	1	1	-	2	-	4
	Can.	155	58	35	35	21	304
Clothing	Man.	42	19	12	13	7	93
	Can.	1849	518	2455	136	75	2833
Wood	Man.	119	10	6	1	1	137
	Can.	4088	402	169	85	71	4815
Furniture and fixtures	Man.	120	13	6	-	1	140
	Can.	3589	264	89	52	26	4020
Paper and allied ind.	Man.	10	5	-	1	1	17
	Can.	352	116	50	39	80	637
Printing and publishing	Man.	192	15	10	2	3	22
	Can.	5672	384	152	59	61	6328
Primary metals	Man.	6	5	1	1	1	13
	Can.	287	74	30	31	52	474
Metal fabricating	Man.	131	21	11	7	1	171
	Can.	5336	732	231	109	91	6499
Machinery	Man.	52	9	3	3	4	71
	Can.	1560	296	110	79	61	2106
Transportation	Man.	51	10	1	3	6	71
	Can.	1409	201	85	50	96	1841
Electrical products	Man.	37	4	2	-	1	44
	Can.	1074	150	82	53	70	1429
Non-metallic mineral prod.	Man.	60	5	2	2	1	70
	Can.	1453	178	48	38	37	1754
Petroleum and coal prod.	Man.	-	-	-	-	-	-
	Can.	45	8	3	3	10	69
Chemicals and chemical	Man.	14	6	-	-	1	21
	Can.	803	147	70	50	84	1154
Miscellaneous	Man.	119	10	2	1	-	132
	Can.	3759	250	113	48	46	4216
Total	Man.	1201	174	74	44	37	1529
	Can.	37037	4765	1907	1131	1153	45993

Source: Statistics Canada, (1982) Business Register Tables #27 & 28, Cycle 130, unpublished data.

TABLE 2

Percent of Establishments By Industry and Employment Size
Manitoba and Canada
1982

Industry		Number of Employees 0-19	20-49	50-99	100-199	199+	Total
Food and Beverage	Man.	77.6	10.3	5.4	3.1	3.6	100%
	Can.	76.3	12.3	4.5	3.2	3.7	
Tobacco Products	Man.	-	-	-	-	-	
	Can.	70.6	5.9	5.9	-	17.6	
Rubber and Plastic	Man.	77.8	16.7	2.8	2.8	-	
	Can.	74.8	13.7	5.5	3.0	3.0	
Leather	Man.	50.0	31.3	12.5	-	6.3	
	Can.	61.2	19.6	9.3	6.7	3.2	
Textile	Man.	79.2	14.6	6.3	-	-	
	Can.	73.2	13.2	5.6	4.2	3.8	
Knitting mills	Man.	25.0	25.0	-	50.0	-	
	Can.	60.0	19.1	11.5	11.5	6.9	
Clothing	Man.	45.2	20.4	12.9	14.0	7.5	
	Can.	65.3	18.3	9.0	4.8	2.6	
Wood	Man.	86.9	7.3	4.4	0.7	0.7	
	Can.	84.9	8.3	3.5	1.8	1.5	
Furniture and fixtures	Man.	85.7	9.3	4.3	-	0.7	
	Can.	64.4	6.6	2.2	1.3	0.6	
Paper and allied ind.	Man.	58.9	29.4	-	-	5.9	
	Can.	55.3	18.2	7.8	6.1	12.6	
Printing and publishing	Man.	86.5	6.8	4.5	0.9	1.4	
	Can.	89.6	6.1	2.4	0.9	1.0	
Primary metals	Man.	46.2	38.5	7.7	7.7	7.7	
	Can.	60.5	15.6	6.3	6.5	11.0	
Metal fabricating	Man.	76.6	12.3	6.4	4.1	0.6	
	Can.	82.1	11.3	3.6	1.7	1.4	
Machinery	Man.	73.2	12.7	4.2	4.2	5.6	
	Can.	74.1	14.1	5.2	3.8	2.9	
Transportation	Man.	71.8	14.1	1.4	4.	8.5	
	Can.	76.5	10.9	4.6	2.7	5.2	
Electrical products	Man.	84.1	9.1	4.5	-	2.3	
	Can.	75.2	10.5	5.7	3.7	4.9	
Non-metallic mineral prod.	Man.	85.7	7.1	2.9	2.9	1.4	
	Can.	82.8	10.1	2.7	2.2	2.	
Petroleum and coal prod.	Man.	-	-	-	-	-	
	Can.	65.2	11.6	4.3	4.3	14.5	
Chemicals and chemical	Man.	66.7	28.6	-	-	4.8	
	Can.	69.6	12.7	6.1	4.	7.3	
Miscellaneous	Man.	90.2	7.6	1.5	0.8	-	
	Can.	89.2	5.9	2.7	1.1	1.1	
Total	Man.	78.5	11.4	4.8	2.9	2.4	
	Can.	80.5	10.4	4.1	2.5	2.5	

Source: Statistics Canada, (1982) Business Register Tables #27 & 28, Cycle 130, unpublished data.

These figures suggest a large number of small firms in all industries in Manitoba. This is correct. Firms employing 50 employees or less account for 89.9 percent of all establishments and firms employing 25 employees or less account for 78.5 percent of all establishments. In terms of employment, this means that 31.9 percent of all manufacturing employment is in small firms of 50 employees or less and 20.0 percent is in firms employing 25 employees or less. The importance of small firms in employment in Manitoba is much greater than in Canada as a whole, though the proportion of establishments are similar. In Canada, small firms employing 50 employees or less account for 87.2 percent of all establishments, but only 23.4 percent of total manufacturing employment. Firms employing 25 employees or less account for 77.8 percent of all establishments.

The Manitoba manufacturing sector is not as diversified as Canada as a whole. Three industries account for 41.9 percent of manufacturing employment whereas in Canada the top three industries account for only 31.2 percent of manufacturing employment, as shown in Table 3. Furthermore, the three-industry concentration ratio for Saskatchewan and Alberta is similar to Manitoba; 44.9 and 41.4 percent respectively. Only British Columbia is significantly different with the top three industries accounting for 59.3 percent of total employment. In the Prairie Provinces the food and beverage industry accounts for the largest percent of manufacturing employment in all provinces; 16.6, 23.3 and 19.4 percent of manufacturing employment in Manitoba, Saskatchewan and Alberta respectively. In Canada, the food and beverage industry accounts for only 11.8 percent of total manufacturing employment.

The Manitoba economy is more diversified than other prairie provinces but it is more diversified because of the larger role of manufacturing rather than because the manufacturing sector itself is more diversified.

TABLE 3

Concentration Ratios
Western Canada and Canada
1980

Percent of Employees Accounted for by	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
3 industries	41.9	44.9	44.4	59.3	31.2
4 industries	51.3	53.5	49.8	66.7	38.6
5 industries	60.0	61.8	57.8	72.5	45.9
6 industries	67.9	68.0	65.4	78.1	53.2
7 industries	73.0	72.0	71.	82.1	59.4
8 industries	77.5	75.7	76.2	85.9	65.4
9 industries	82.0	79.1	80.0	88.6	70.8
10 industries	85.8	82.0	83.5	90.5	75.5

1.3 PRODUCTIVITY OF THE WORKFORCE

Productivity of the workers in Manitoba's manufacturing industries is lower than for Canada as a whole and, on average, is lower than in the other western provinces as well. In 1980, value added per worker was $41,134 in Manitoba whereas in Canada it was $48,999. This pattern is repeated in all but five of the industries as indicated in Table 4. Value added per worker exceeded $50,000 in Saskatchewan, Alberta and British Columbia. There are several industries in Manitoba which have relatively high productivity; metal fabricating, machinery, and electrical products are notable examples. However, in other industries the low productivity levels are difficult to reconcile with the apparent success of the sector. In the clothing industry for example, value added per worker was only $20,676 compared to $23,178 in Canada as a whole. This implies that, in this sector, productivity in Manitoba is 11 percent below the Canadian average. Clothing is an example of an industry with no obvious comparative advantage from locating in Manitoba.

Productivity per worker has been growing in Manitoba as well as in the other provinces. Real growth per worker, after correction for inflation, has exceeded the productivity growth in Canada over the 1971-1980 period. In Manitoba value added per worker increased by 2.75 percent per worker annually, on average, over the 1971-1980 period, while in Canada, value added per worker increased by 2.39 percent annually during the same period. Furthermore, the Manitoba sector seems more resilient. During 1975, when value added per worker in Canada fell by 13.9 percent, value added per worker in Manitoba fell by only 8.3 percent. Again during 1980, value added per worker fell by 1.1 percent in Canada as a whole but rose by 1.5 percent in Manitoba. Part of this resilience may be due to Manitoba's proximity to booming Alberta where Manitoba sells a significant percent of its manufacturing output. However, the proximity factor can only be pushed so

TABLE 4

Value Added Per Worker
Manitoba and Canada
1982

Industry	Manitoba	Canada
Food and Beverage	44,909	53,282
Tobacco Products	n/a	103,281
Rubber and Plastic	n/a	42,028
Leather	n/a	24,189
Textile	22,071	36,182
Knitting mills	n/a	23,292
Clothing	20,676	23,178
Wood	29,617	34,385
Furniture and fixtures	25,066	28,089
Paper and allied industries	62,376	68,001
Printing and publishing	38,270	55,327
Primary metals	46,850	55,616
Metal fabricating	48,358	43,094
Machinery	52,628	51,177
Transportation	37,884	44,829
Electrical products	55,217	49,251
Non-metallic mineral prod.	56,521	53,349
Petroleum and coal prod.	n/a	216,934
Chemicals and chemical	120,409	108,729
Miscellaneous	22,403	37,185
Total	41,134	48,999

Source: Manitoba Bureau of Statistics (1983), Manufacturing Profile: Canada and Provinces 1966-1980 (Government of Manitoba, Manitoba Bureau of Statistics, Winnipeg).

far. British Columbia is also in close proximity to Alberta and it suffered even greater declines in manufacturing output than Canada as a whole during recent recessions due to the sensitivity of its industries to world conditions. This is particularly true of the lumber and mining industries.

1.4 FACTOR COST DIFFERENTIALS

Differences in factor costs are a key determinant of relative profitability of manufacturing in different provinces and, therefore, affect the establishment of new firms and the relative growth of manufacturing. There is some fragmentory evidence on (a) wage rates for the same occupation in different regions, and (b) differences in output per worker. Wage rates are shown in Table 5 for selected manufacturing occupations. The pattern which emerges is that Winnipeg has somewhat lower wage rates than elsewhere in Canada, but not significantly.

Differences in output per worker are much harder to identify than differences in hourly wage rates, so the evidence we have is broad and tentative. Table 4 shows the raw data for value added per worker in manufacturing. Both the Economic Council and Norcliffe and Mitchell[1] have estimated interprovincial differences in output per worker in manufacturing independent of those caused by differences in output mix and (in the case of Norcliffe and Mitchell's work) by differences in output scale. The data used is from 1969 (for Norcliffe and Mitchell) and 1970-73 (for the Economic Council). These studies concluded that manufacturing output per worker in Manitoba runs 10.6 and 11 percent below the

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[1]Economic Council of Canada, Living Together: A Study of Regional Disparities (Ottawa, 1977); G.B. Norcliffe and P. Mitchell, "Structural effects and provincial productivity variations in Canadian manufacturing industry", Canadian Journal of Economics Nov. 1977, 695-701.

TABLE 5

Selected Wage and Salary Rates for Common Occupations
Canada and Winnipeg
Oct. 1, 1981

Occupation	Canada	Winnipeg
(2) Slaughtering-Meat Processing		
Boner	$10.14	$10.28
Packager, Hand	9.29	9.64
(3) Dairy Factories		
Driver Salesman/woman	402.w	376.w
(6) Bakeries		
Baker Helper	8.98	9.88
(8) Breweries		
Packager, Machine	11.95	11.39
(11) Men's Clothing		
Sewing-Machine Operator	5.03	4.22
Sewing-with incentive or piecework rates	5.51	5.68
(17) Printing & Publishing		
Bindery Worker	8.00	7.92
Compositor	11.45	11.65
Offset pressman/woman	11.10	10.92
(22) Metal-Stamp-Press-Coat		
Assembler production	7.97	10.91
(25) Agriculture Implements		
Farm Machinery Assembler	10.33	9.28
(27) Aircraft & Parts		
Machinist, General	9.68	9.48
Clerk General, Office, Intermediate	284.w	270.w
Clerk General, Office, Senior	333.w	309.w
Secretary, Senior	325.w	296.w
Maintenance		
Electrical Repairer	11.54	10.53
Millwright	11.66	10.97
Service		
Truck Driver, Heavy	9.81	9.16
Security Guard	6.09	5.20
Labourer Non-Production	8.40	7.51

NOTE: w = weekly

Source: Labour Canada (1981) Wage Rates, Salaries and Hours of Labour (Canada) and (Winnipeg) Surveys Division, Labour Data Supply and Services Canada, Ottawa.

Canadian average for plants of similar scale and output. The Maritime provinces are twice as far below the national the national average, but the other western provinces are estimated to be at or well above the national average. Those productivity differences should more than compensate for the small margins between wage rates in Manitoba and the rest of Canada.

The data on unit labor cost differences is sketchy, but clearly there is no overwhelming case to be made for manufacturing in Manitoba on the grounds of unit cost advantages in manufacturing unless capital inputs are much cheaper. We have no reason to believe that to be true.

1.5 WHERE DO THEY SELL

In 1974, Manitoba exported 47.8 percent of its manufacturing output (Table 6). By 1979, the latest year for which data is available, Manitoba exported 56.4 percent of the manufacturing output. These figures include exports to other provinces as well as exports outside Canada. The important point here is that the manufacturing sector in Manitoba does not produce primarily for the local Manitoba market. (For comparison, Canada exported 23.8 percent of manufacturing output in 1979, although it must be emphasized that the figures for Canada include only exports outside the country.) A further comparison with the western provinces reveals that Manitoba is more export oriented than the manufacturing sector in any other province with the exception of B.C., which exports slightly more out of province.

Manitoba's largest market is Ontario, which, in 1979, accounted for 13.8 percent of Manitoba's manufacturing output. Manitoba's second largest market was outside of Canada, accounting for 11.0 percent of manufacturing output. This was followed by Alberta with 9.0 percent, Saskatchewan with 8.0 percent and Quebec with 7.1 percent of manufacturing output. Because of the differences in

TABLE 6

Destination of Manufacturing Output
Manitoba
('000)
1974 and 1979

Province	Manufacturing Output			
	1974		1979	
	Sales	%	Sales	%
Newfoundland	3,205	.16	19,494	.52
Prince Edward Island	1,273	.06	7,019	.19
Nova Scotia	23,407	1.14	36,818	.99
New Brunswick	16,509	.80	24,905	.67
Quebec	120,662	5.86	265,423	7.13
Ontario	265,697	12.91	512,005	13.76
Manitoba	1,076,144	52.23	1,623,345	43.61
Saskatchewan	125,925	6.12	299,035	8.03
Alberta	137,480	6.68	334,923	9.00
British Columbia	73,745	3.58	187,848	5.05
Yukon/Northwest Territories	5,392	.26	3,678	.10
Outside Canada	209,914	10.20	407,595	10.95

Source: Statistics Canada, Destination of Shipments of Manufacturers, #31-522 and 31-530 (1974 and 1979), Minister of Supply and Services Canada, Ottawa.

TABLE 7

Per Capita Sales to All Other Provinces
Manitoba
1974 and 1979
('000)

Province	1974	1979
Newfoundland	5.92	33.98
Prince Edward Island	11.05	57.07
Nova Scotia	28.84	43.51
New Brunswick	25.26	35.53
Quebec	19.71	42.24
Ontario	32.99	60.21
Manitoba	1,067.14	1,573.01
Saskatchewan	139.96	311.82
Alberta	79.82	166.42
British Columbia	10.00	73.10
Yukon/Northwest Territories	89.42	57.11

Source: Statistics Canada, Destination of Shipments of Manufacturers, #31-522 and 31-530 (1974 and 1979), Minister of Supply and Services Canada, Ottawa.

population size among Canadian provinces, the penetration and significance of Manitoba's sales to other Prairie Provinces can be missed. In Table 7, Manitoba sales to other provinces are shown in per capita terms. Sales per capita were $312 for Saskatchewan, $166 for Alberta and $73 for British Columbia while sales to Ontario were only $60 per capita. Alberta has become a more important customer since 1974, when it ranked below the Yukon/Northwest Territories. By 1979, sales to Alberta had risen, and sales to the Yukon/Northwest Territories had fallen in both nominal and real terms. British Columbia, Manitoba's 10th most important customer in 1974 has risen to its 4th most important customer in 1979. The manufacturing sector seems increasingly oriented toward western Canadian markets outside Manitoba. These markets absorbed 17 percent of output in 1974, but 22 percent in 1979.

1.6 SMALL BUSINESS

Manitoba is heavily dependent on small business. Some data is available on the number of small firms, as well as their employment and sales (Table 8). The data is in Table 8 pertains to firms with less than 25 employees and this is a defensible definition of small business. An alternative definition of small business as firms with sales of less than $2,000,000 was considered and rejected. The real value of $2,000,000 declines as the price level rises and so the number of firms likely to be included in this category will likely decline over time.

Eighty percent of Manitoba's manufacturing firms and 94 percent of all Manitoba firms are defined as part of the small business sector. In Canada as a whole, 78 percent of manufacturing firms and 93 percent of all firms are small. Measured by sales, the small business sector in Manitoba has been growing faster than the manufacturing sector as a whole. In 1974, sales by firms with less than 25 employees was $260,000,000 and represented 28.4 percent of sales by the entire

manufacturing sector. By 1979, sales by firms with less than 25 employees had risen to $507,000,000 and represented 36.2 percent of all manufacturing sales.

The same growth pattern is not evident in Canada as a whole. Firms employing less than 25 employees accounted for 13.3 percent of manufacturing sales in 1974, 13.8 percent in 1976, and 13.8 percent in 1979.

Data shows that the small business sector is also a more important source of employment in Manitoba than in Canada as a whole. In 1979, 20 percent of manufacturing employment was in firms with less than 25 employees while the comparable figure for Canada as a whole was 14.2 percent (Table 8).

The small business sector is larger in Manitoba than in the other western provinces. Although there are regional differences, the other western provinces have shown little change in the percent of manufacturing output accounted for by firms with less than 25 employees from 1974 to 1979. In fact, the importance of small business fell slightly in Alberta and British Columbia. It appears, however, that the small business sector is an important factor in explaining the relative success of the manufacturing sector in Manitoba.

TABLE 8

Establishments with Less Than 25 Employees

Number and Sales
Manufacturing
Manitoba and Canada
1974, 1976, 1979

	1974	1976	1979
Number of firms with less than 25 employees			
Manitoba	1,312	1,384	1,518
Canada	30,906	34,442	38,132
Percent of all firms with less than 25 employees			
Manitoba	78.6	79.5	80.5
Canada	75.0	76.1	77.8
Sales in $Millions by firms with less than 25 employees			
Manitoba	260.6	421.4	507.5
Canada	9,641.9	15,303.8	19,205.4
Percent of all sales by firms with less than 25 employees			
Manitoba	28.4	34.9	36.2
Canada	13.3	13.8	13.8
Number of employees in firms with less than 25 employees			
Manitoba	8,636	9,149	9,837
Canada	227,353	247,799	267,696
Percent of all employment in manufacturing in firms with less than 25 employees			
Manitoba	17.6	17.7	20.0
Canada	13.4	13.6	14.2

Source: Government of Canada, Department of Regional Economic Expansion (1980), Small Business in Canada: A Statistical Profile, Study #80-03, D.R.E.E., Data Coordination Analysis and Liaison, Ottawa.

SECTION 2

DESCRIPTIVE STUDY OF MANITOBA MANUFACTURING INDUSTRIES

2.1 THE DATA BASE

For a more detailed look at Manitoba manufacturing, the senior officer of each firm in two 2-digit manufacturing sectors in the province, was interviewed. The two sectors were picked with two criteria in mind: 1) they were to be important in the manufacturing sector at large, and 2) they were to have no obvious comparative advantage in Manitoba because of location or natural resource availability. It would have been desirable to survey more than just these two sectors, but time and funds did not permit the study to be expanded. While it is difficult to generalize any conclusions to the manufacturing sector as a whole on the basis of only two sectors, we have no reason to believe that the two sectors chosen are not typical in many respects covered by the interview. The two sectors are the clothing industry (S.I.C. Code 07) and the transportation equipment industry (S.I.C. Code 15). Seventy-eight firms were identified in the clothing industry, and 66 firms in the transportation equipment industry.

The clothing industry accounted for 7 percent of total value added in manufacturing in Manitoba in 1980, and the transportation equipment industry for just over 10 percent. Manitoba's output represented 6.6 percent of the nation's clothing output and 2.9 percent of Canada's output of transportation equipment.

The interviews were conducted by professional interviewers over the telephone during August 1983. The respondents (the president or most senior local executive, identified in advance through company directories) received a letter of introduction to the study and an outline of the questionnaire in the mail (see Appendix A). Each respondent was contacted by telephone within 2 or 3 days of receiving the letter of introduction. At that time their cooperation was soli-

cited, confidentiality of their information was assured, and they were promised a summary report of the study for their participation.

The response rate, shown in Table 9, was excellent for a survey of this type conducted during the summer months. Of the total population of 144 firms, 96 completed the entire interview while only 28 refused to participate. Twenty firms were considered ineligible for the study because they were not presently engaged in manufacturing or had gone out of business.

The 96 firms successfully interviewed accounted for 77 percent of the eligible firms, and 78 percent of the employment in these two manufacturing sectors. Analysis of the nature and distribution of the non-responding did not indicate any obvious bias in the data.

A copy of the questionnaire is attached as Appendix B.

2.2 THE SIZE OF FIRMS

In the survey of manufacturing in Manitoba, it was noted that a large number of Manitoba firms are small and that the small business sector is more important in Manitoba than in Canada as a whole. The small business sector also shows up as an important component of the clothing and transportation equipment sectors.

In the clothing industry, 18 of the 51 firms responding (35.3 percent) had fewer than 25 employees. However, there are also a number of large firms in the clothing industry, with 13 firms (25.5 percent) employing 200 or more employees and 3 (5.9 percent) employing 500 or more employees. A breakdown by employment size is given in Table 10.

In the transportation equipment industry, a larger proportion of the firms are small. Twenty-one of the 45 firms responding have fewer than 25 employees (Table 10). An additional nine firms have 25-49 employees. However, as in the clothing industry, there are a number of large firms as well. Five of the firms employ 200 or more employees and 2 have in excess of 500 employees.

TABLE 9

Survey Response Rates

Sector	Interview Completed	Interview Refused	Firm Ineligible for Survey: Never Manufactured	Firm Ineligible for Survey: No Longer A Manufacturer	Firm Ineligible for Survey: Out of Business
Clothing	51	19	2	2	4
Transportation Equipment	45	9	7	3	2
Total	96	28	9	5	6

TABLE 10

Number of Manitoba Manufacturing Firms by Number of Employees

Number of Employees	Clothing	Transportation	Exporter	Non-Exporter
less than 25	18	21	7	32
25 - 49	8	9	7	10
49 - 99	6	8	6	8
100 - 199	6	2	6	2
200 - 499	10	3	7	6
500 and over	3	2	4	1

Because of the large number of independent firms in our sample, the size distribution of entrepreneurial firms mirrors that of the industry at large. A total of 38 firms out of 88 responding (43.2 percent) employ less than 25 employees. A further 28 firms (31.8 percent) employ 25-49 employees, and 5 entrepreneurial firms have 500 or more employees.

There is a positive correlation between age and firm size. Approximately one-half of the firms founded in the past 20 years have less than 25 employees, while only 30 percent of the firms founded more than 20 years ago are still that small. Conversely, 18 percent of the firms founded in the past 20 years have 100 or more employees, while 36 percent of those founded more than 20 years ago have 100 or more employees. There is also a positive correlation between firm size and whether the firm is engaged in exporting outside of Canada. Only 18 percent of the firms with less than 25 employees export outside of Canada while 80 percent of firms with 500 or more employees do so (Table 10).

There is no obvious correlation between firm size and productivity (measured by sales per employee).

2.3 RECENT SALES

The predominance of small firms in the clothing and transportation equipment industries is also evident in sales data. In the clothing industry, 20 of the 39 firms disclosing sales data had sales of less than $2,000,000 during their most recent fiscal year. Nine firms had sales of $10,000,000 or more during this period (Table 11).

Transportation equipment displays a similar pattern: 13 of 36 respondents reported sales of less than $2,000,000 in their most recent fiscal year; 6 firms report sales of $10,000,000 or more in their last year with sales ranging up to $85,000,000 (Table 12).

TABLE 11

Number of Manitoba Firms by
Number of Manitoba Employees and Age of Firm

	Years since Start-Up				
Number of Employees	0 - 5	6 - 10	11 - 20	21 - 40	40 and over
less than 25	8	4	13	7	7
25 - 49	4	2	1	7	3
49 - 99	3	0	5	3	3
100 - 199	0	0	1	4	3
200 - 499	2	0	3	2	6
500 and over	0	1	2	0	2

TABLE 12

Number of Manitoba Manufacturing Firms by
Annual Sales in Most Recent Fiscal Year

	Number of Firms		
Sales ('000)	Clothing	Transportation	Exporter
less than $1,000	13	12	4
$1,000 - $1,999	7	1	2
$2,000 - $9,999	10	17	15
$10,000 - $19,999	6	4	7
$20,000 and over	3	2	4

TABLE 13

Number of Manitoba Manufacturing Companies by
Average Annual Sales Growth Over the Past Five Years

% Growth in Sales	Clothing	Transportation	Exporter
0 or less	10	9	6
1 - 10	3	13	12
11 - 20	20	7	9
over 20	7	3	4
TOTAL	40	32	31

Sales growth in the past five years is more revealing. The clothing industry appears to be a stable industry. Of 40 clothing firms reporting sales growth data, 20 reported sales growth of 11-20 percent per year during the past five years (Table 13). Approximately the same number reported zero or negative sales (10) as reported sales growth in excess of 20 percent per year (7). In the transportation equipment sector, 25 percent of the firms reported that their sales growth has averaged 10 percent per year over the past five years with 9 (28.1 percent) reporting sales growth of zero or less while 3 (9.4 percent) reported sales growth in excess of 20 percent per year. The data indicates that sales growth has been less in the transportation equipment industry than in the clothing industry over the past five years. To put these figures into perspective the real output of the transportation equipment sector in Canada contracted by 21 percent over the years 1977-1982, while the clothing and knitting industry contracted by only 7 percent.

A disproportionate share of slow-growing firms are small (Table 14). Over one third of the firms with less than 25 employees report zero or negative growth; only one-sixth report growth over 20 percent. For firms with over 100 employees these proportions are less than 10 percent and 18 percent respectively.

There is not a significant correlation between the age of firms and sales growth (Table 15). Most of the firms which are not more than five years old (6 out of 10) report sales growth of 20 percent or more per year but this is likely due to the starting point for sales by these firms. Firms 11-20 years of age show no clear pattern. Among the firms 40 or more years old, 17 responded to this question, and 5 reported zero or negative growth, 5 reported 1-10 percent growth per year and 5 reported 20 percent or more growth in sales annually over the past five years.

TABLE 14

Number of Manitoba Manufacturing Companies by Firm Size and Average Annual Sales Growth Over the Past Five Years

Percent Growth in Sales	Number of Employees				
	less than 25	25-99	100-199	200-499	500 and over
0 or less	9	8	1	1	0
1 - 10	6	10	3	6	0
11 - 20	5	5	3	2	3
over 20	4	2	1	2	1
TOTAL	24	25	8	11	4

TABLE 15

Number of Manitoba Manufacturing Companies by Age of Firm and Average Annual Sales Growth Over the Past Five Years

Percent Growth in Sales	Number of Years Since Start-up				
	0 - 5	6 - 10	11 - 20	21 - 40	Over 40
0 or less	1	2	5	6	5
1 - 10	3	2	8	7	5
11 - 20	0	1	3	2	2
over 20	6	0	6	0	5
TOTAL	10	5	22	15	17

The firms in this sample are bullish on future growth prospects for their firm relative to their pessimistic appraisal of growth prospects for the industry (Table 16 and Table 17). In the clothing industry, the overall assessment for the industry is clearly pessimistic: 19 of 24 respondents (79 percent) predict growth for the industry as a whole will average 5 percent or less per year over the next five years. Only 16 of 39 (44.4 percent) of the clothing firms predicted their own sales would be 5 percent or less per year over the next five years. At the other end of the scale, 10 out of 39 (27.8 percent) respondents in the clothing industry expected sales growth for their firm to exceed 20 percent per year, compared to 2 out of 24 (8.3 percent) respondents who predicted the industry growth would be that fast.

The transportation industry also displays this pattern of being more optimistic about firm sales growth than industry sales growth over the next five years. Eight out of 21 respondents (38.1 percent) predicted growth for the industry of 5 percent or less per year over the next five years, while only 7 out of 29 (24.1 percent) predicted their own sales growth prospects would be that slow. Five out of 29 (17.2 percent) firms expected their own growth to exceed 20 percent per year while 2 out of 21 (9.5 percent) of the firms predicted similar growth rates for the industry as a whole.

Exporting firms display a similar pattern also, with 12 out of 18 (66.7 percent) of the respondents predicting industry sales growth of 5 percent or less per year while only 7 out of 26 respondents expect their own firm to grow at 5 percent or less per year over the next five years. Similarly 3 out of 26 (11.5 percent) of the exporting firms predicted sales growth for their firm in excess of 20 percent per year while no firm predicted the industry would grow at a rate in excess of 20 percent per year.

TABLE 16

Number of Manitoba Manufacturing Companies by
Expected Average Annual Increase in Sales by Firm and Type of Firm
Over the Next Five Years

% Growth in Sales	Clothing	Transportation	Exporter
less than 0	9	3	1
0 - 5	7	4	6
1 - 10	8	8	10
11 - 20	5	9	6
over 20	10	5	3
TOTAL	39	29	26

TABLE 17

Number of Manitoba Manufacturing Companies by
Expected Average Annual Increase in Sales of the Industry
Over the Next Five Years

% Growth in Sales	Clothing	Transportation	Exporter
less than 0	10	2	2
0 - 5	9	6	10
1 - 10	2	7	4
11 - 20	1	4	2
over 20	2	2	0
TOTAL	24	21	18

TABLE 18

Number of Manitoba Manufacturing Companies by
Growth Prospects for Firms and Industries and Size of Firm

Number of Employees	Average Annual Percentage Growth in Sales							
	0 or less		1 - 10		11 - 20		Over 20	
	Firm	Industry	Firm	Industry	Firm	Industry	Firm	Industry
less than 25	6	4	9	5	2	1	4	1
25 - 99	2	1	4	7	8	4	7	3
100 - 199	0	3	6	4	1	0	0	0
200 - 499	4	3	5	5	2	0	1	0
500 and over	0	1	3	3	1	0	0	0

TABLE 19

Number of Manitoba Manufacturing Companies by
Growth Prospects for Firms and Industries and Age of Firm

Percent Growth in Sales	Number of Years Since Start-Up									
	0 - 5		6 - 10		11 - 20		21 - 40		Over 40	
	Firm	Industry	Firm	Industry	Firm	Industry	Firm	Industry	Firm	Industry
0 or less	0	0	0	0	2	1	4	5	6	6
1 - 10	2	0	3	3	7	8	7	7	7	6
11 - 20	3	1	1	1	5	1	3	1	2	1
over 20	7	2	1	1	2	1	0	0	1	0
TOTAL	12	3	5	5	15	11	14	13	16	13

The most bullish firms are the young ones (Table 19). A total of 7 out of 12 (58.3 percent) respondents with firms 5 years old or less indicated growth in sales for the firm is expected to exceed 20 percent per year over the next five years, while only 9.4 percent of the firms over 5 years of age predict similar growth over the same period.

2.4 WHERE FIRMS SELL THEIR OUTPUT

The clothing industry is heavily dependent on sales to other provinces and in some cases, to outside of Canada (Table 20). Manitoba accounts for less than 50 percent of the total sales for 39 of the 51 firms. Furthermore, Manitoba accounts for 10 percent or less of total sales for 26 firms. Only 11 of the 51 firms sell more than 75 percent of their output in Manitoba.

This pattern is also evident in the transportation equipment sector. Of the 43 firms responding, 28 sell less than 50 percent of their output in Manitoba and 6 sell none of their output in Manitoba (Table 21).

Manitoba sales are more important for smaller firms, a fact which must be considered in evaluating the large small business sector in Manitoba. A total of 19 of 38 small firms report that Manitoba accounts for less than 50 percent of sales; this rises to 23 out of 24 firms with 100 or more employees (Table 24). Furthermore, 15 of 38 report that Manitoba sales account for 75 percent or more of total sales, while only 1 of the 24 firms with 100 or more employees sells 75 percent of its output in Manitoba.

In sales to Eastern or Western Canada, the clothing industry has 13 out of 49 firms that export more than 50 percent of their output to Eastern Canada while 8 out of 49 export more than 50 percent of their output to Western Canada. Only 8 of 49 firms do not sell in Eastern Canada at all, and an additional 15 of 49 firms sell between 21 and 50 percent of their output in Eastern Canada. Conversely, 18 of 49 firms sell between 21 and 50 percent of their output in Western Canada.

TABLE 20

Location of Sales by
Manitoba Clothing Manufacturers

Number of Firms Reporting
Sales by Region

Percent of All Sales	Region of Sales				
	Manitoba	Eastern Canada	Western Canada	U.S.A.	Elsewhere in World
0 - 5	15	14	10	39	48
6 - 10	10	4	2	5	2
11 - 20	3	3	11	0	0
21 - 50	10	15	18	6	1
51 - 75	1	11	7	0	0
over 75	11	2	1	1	0

TABLE 21

Location of Sales by
Manitoba Transportation Equipment Manufacturers

Number of Firms Reporting
Sales by Region

Percent of All Sales	Region of Sales				
	Manitoba	Eastern Canada	Western Canada	U.S.A.	Elsewhere in World
0 - 5	1	25	15	32	41
6 - 10	3	6	3	2	1
11 - 20	3	6	1	3	0
21 - 50	15	4	15	4	1
51 - 75	5	1	6	0	0
over 75	10	1	3	3	0

TABLE 22

Location of Sales
by Exporting Firms

Number of Firms Reporting Sales
by Region

Percent of All Sales	Region of Sales				
	Manitoba	Eastern Canada	Western Canada	U.S.A.	Elsewhere in World
0 - 5	16	13	8	13	31
6 - 10	5	4	2	7	3
11 - 20	2	4	8	3	0
21 - 50	10	5	15	10	2
51 - 75	2	7	2	0	0
over 75	1	2	1	3	0

TABLE 23

Location of Sales
by Age of Firm

Number of Firms Reporting Sales
by Region

Percent of All Sales	Region of Sales									
	Manitoba		Eastern Canada		Western Canada		U.S.A.		Elsewhere in World	
	0-20 Yrs.	Over 20 Yrs.	0-20 Yrs.	Over 20 Yrs.	0-20 Yrs.	Over 20 Yrs.	0-20 Yrs.	Over 20 Yrs.	0-20 Yrs.	Over 20 Yrs.
0 - 5	4	19	10	29	9	16	20	51	23	66
6 - 10	5	8	2	8	1	4	2	5	1	2
11 - 20	2	4	3	6	2	10	0	3	0	0
21 - 50	5	19	4	15	5	28	1	9	0	3
over 50	8	19	4	11	6	11	1	3	0	0

TABLE 24

Location of Sales
by Number of Employees

Number of Firms Reporting Sales
by Region

Percent of All Sales	Region of Sales									
	Manitoba		Eastern Canada		Western Canada		U.S.A.		Elsewhere in World	
	less than 25 empl.	25 or more empl.	less than 25 empl.	25 or more empl.	less than 25 empl.	25 or more empl.	less than 25 empl.	25 or more empl.	less than 25 empl.	25 or more empl.
0 - 5	3	20	19	20	15	10	34	37	37	52
6 - 10	4	10	6	4	4	1	1	6	1	2
11 - 20	2	4	4	5	1	11	0	3	0	0
21 - 50	11	13	6	13	11	22	2	8	0	3
over 50	19	8	2	13	6	11	1	3	0	0

The transportation equipment industry is oriented more to sales in Western Canada than the clothing industry. A total of 18 of 43 firms report selling more than 33 percent of their output in Western Canada while only 4 of 43 report selling 33 percent of their output in Eastern Canada. Twenty-five out of 43 firms report selling 5 percent or less of their output in Eastern Canada.

The larger Manitoba firms have a greater percentage of their sales in Eastern Canada. Only 2 out of 37 of the firms with less than 25 employees sell more than 50 percent of their output in Eastern Canada, while 13 out of 55 (23.6 percent) of the firms with 25 employees or more sold 50 percent or more of their output in Eastern Canada (Table 24). The same pattern applies to sales in Western Canada, excluding Manitoba: 33 of 53 firms (62.3 percent) with 25 or more employees reporting that more than 20 percent of their sales are in Western Canada while 17 of 37 (46.0 percent) small firms with less than 25 employees are selling more than 20 percent of their output in Western Canada.

There is no clear pattern in the relative importance of sales to Eastern versus Western Canada by age of firm. A total of 11 of 23 firms (47.8 percent) 20 years old or less export more than 20 percent to Western Canada while 39 of 69 firms (56.5 percent) over 20 years of age sell more than 20 percent in the Western Canadian market (Table 23). The results are similar for Eastern Canada, with 8 of 23 firms (30.7 percent) 20 years old or less selling more than 20 percent of their output in this market while 26 of 69 firms (37.7 percent) over 20 years of age selling more than 20 percent of their output in Eastern Canada.

Sales to the U.S.A and the Rest of the World are small for both the clothing and transportation equipment industries. In the clothing industry, 39 of 51 firms report sales to the U.S.A. are 5 percent or less of their total and most respondents have no sales to the U.S.A. Similarly, in the transportation equipment industry, 32 of 44 firms report sales to the U.S.A. are 5 percent or less

and most of these firms report zero sales to the U.S.A. There are some firms in both industries with substantial exports to the U.S.A. In clothing, 7 of 51 firms and in transportation equipment 7 of 44 firms export more than 20 percent of their sales to the U.S.A.

Of those firms which do sell in the U.S.A., the most important market area is the North Central region. This reinforces the belief that Manitoba has an advantage in selling to the area of the U.S.A. closest to the province (Table 25). Second after the North Central region is the number of firms reporting sales to the entire national market in the U.S.A.

Even fewer Manitoba firms export to the Rest of the World. In the clothing industry, 48 of 51 firms report sales of 5 percent or less to the Rest of the World while in transportation equipment 41 of 43 firms export 5 percent of sales or less to the Rest of the World (Table 11 and 12). Even among the firms which do export some proportion of their output, 31 of 36 firms report exporting 5 percent of sales or less to the Rest of the World. There are only two firms with substantial exports abroad, both reporting between 20 and 50 percent of their total sales to the Rest of the World (Table 22). With such limited data, it is doubtful if anything can be inferred about market areas in the Rest of the World. Still it appears Western Europe is the major market area (Table 26) followed by the Middle East.

2.5 WHY DID FIRMS CHOOSE TO LOCATE IN MANITOBA ORIGINALLY?

The main puzzle to be explained in this report is why Manitoba manufacturing has prospered so, relative to other sectors in Manitoba. In The Bottom Line: Technology, Trade, and Growth, the Economic Council presents evidence suggesting that both fast and slow-growing sectors have similar death rates of existing firms, but that the faster growing sectors have a much more rapid rate of entry

TABLE 25

Major Sales Areas in the U.S.A. for Manitoba Manufacturing Companies

Region	Clothing	Transportation	Total
Middle Atlantic	1	0	1
North Central	9	11	20
South Central	0	2	2
Pacific	1	2	3
All Over	6	4	10

TABLE 26

Major Sales Areas in the Rest of the World for Manitoba Manufacturing Companies

Region	Number of Firms Reporting Region as Most Important		
	Clothing	Transportation	Total
South America	0	1	1
Western Europe	3	1	4
Middle East	0	2	2
Far East	1	0	1
Australia/New Zealand	1	0	1
Other	0	1	1

of new firms. Reasons for such decisions to enter Manitoba manufacturing may therefore explain much of the prominence of Manitoba's manufacturing sector.

Manufacturing firms in clothing and transportation equipment located in Manitoba at varying dates from 1877 to 1983, so responses to this question refer to a very wide span of years. Table 27 shows that half of the firms had started up before the end of the Second World War. The expansion of this part of the manufacturing sector clearly is not due to a sudden or even a recent surge of new firms, but rather to the expansion of long-established firms.

Table 28 summarizes the responses of firms to the question of why they chose to start up in Manitoba originally. Several points stand out in Table 28, others are more subtle. The dominant reason given is personal, non-business reasons. This probably refers most commonly to the fact that those starting the firm lived in Manitoba and saw no reason to pull up roots and move elsewhere before starting up their business. This broad category is particularly important in the clothing industry, where 41 of 49 firms gave it as one of their principal reasons.

Access to markets is the next most important reason given, but almost exclusively by firms in the transportation equipment sector. This can also refer implicitly to the lower transport costs of shipping from Winnipeg to Western Canada, but that is not clear. At the time of start-up, the intended market may have been just Manitoba or even just Winnipeg. Surprisingly, access to markets is also mentioned relatively frequently by those firms which export from Canada. Labour costs are virtually ignored. Even availability of labour does not matter to many firms, as though they took it for granted or as though the skill levels required were low and easily imported.

Personal, non-business factors are just as important for the more recent entrants as for all firms. So is access to markets. The more recent entrants have more concern over availability of labour, over transport costs, and over

TABLE 27

Year of Start-up of Firms in Clothing and Transportation Equipment Manufacturing in Manitoba

	1978 -83	1973 -77	1963 -72	1943 -62	Before 1943	Total
Clothing	10	4	10	14	40	78
Transportation Equipment	7	3	15	9	32	66
Total	17	7	25	23	72	144

TABLE 28

Reasons for Starting Up in Manitoba
As Reported by Manitoba Manufacturing Firms

	Number of Firms Reporting				
	All Firms	Clothing	Transportation Equipment	Exporters	Started Since 196
Access to markets	15	2	13	9	7
Anticipated future growth of markets	4	2	2	1	1
Labour relations climate	2	1	1	1	
Availability of labour	9	6	2	4	8
Availability of raw materials	1	1			1
Transportation facilities and costs	4	1	3	1	4
Climate	1		1		)
Access to government technical and financial support	3		3	2	3
Personal business factors	9	2	7	5	6
Personal non-business factors	64	41	23	22	32
Other factors	4	3	1	2	3
Total Number of Firms	93	49	44	36	48

government support than the earlier entrants, but the concern is still mentioned by only a few firms.

The general pattern which emerges from Table 28 is that the cost and availability of inputs is not an important determinant of start-ups in these sectors. Wage costs are never mentioned, nor is availability of capital, municipal taxes, availability of community facilities, or cost of raw materials. Availability of labour is mentioned a few times, chiefly in the clothing industry and by the more recent entrants (half of the mentions are by clothing firms started in the last five years). Availability of raw materials and transport costs and facilities are also mentioned infrequently, and then only by the firms started since 1963. In sum, the vast majority of start-ups in these two sectors appear to have occurred because of personal, non-business reasons having nothing to do with the economics of production.

These results are in stark contrast to the factors usually assumed to guide corporate decisions on plant location. For example, a survey of large companies by Fortune magazine indicated the four most important factors influencing corporate decisions on plant location were (in order of importance):

- worker productivity
- the community's receptiveness to business and industry
- efficient means of transportation for industrial raw materials and products, and
- the attitudes of local and regional governments regarding taxes.[2]

These factors were occasionally mentioned by the firms surveyed but not with any frequency.

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[2]Cited in a speech by Marc Lalonde, November 14, 1983.

TABLE 39

Frequency of Company Start-ups as a Spinoff from Another Firm

Started Up as a Spinoff From Another Firm:	Number of Firms Reporting								
	All Firms	Clothing	Transport Equipment	Age 0-20 Yrs.	Age 21+ Yrs.	Small firms (25 empl.)	Medium-size firms (25-100 empl.)	Large firms (200+ empl.)	Technology More Advanced rel. to province
No	72	43	29	34	38	31	20	14	20
Yes	23	7	16	15	8	8	11	3	11
TOTAL	95	50	45	49	46	39	31	17	31
Type of Other Firm:									
Manufacturer	16	7	9	11	5	7	6	3	7
Wholesaler/ Retailer	3		3	4	1		3		2
Other	4		4	4	2	1	2		2

Some light is shed on the question of location by the responses to another question. Respondents were asked if their firm was started as a spinoff from some other firms. Of the 96 relevant companies, only 23 answered yes. Table 29 shows the breakdown of those responses. Seven of 50 clothing firms were spun off other manufacturing firms while 16 of 45 firms in transportation equipment were spun off other firms (9 in manufacturing, 3 in retail or wholesale trade, and 4 in other activities). The proportion of spinoffs is also higher in the medium-size firms (25 to 99 employees), but that may just be a reflection of the relatively larger size of firms in transportation equipment than in the clothing sector. Firms which perceive themselves as relatively more advanced than competitors in the province also acknowledge themselves more frequently as a spinoff.

2.8 WHY DID FIRMS EXPAND THEIR MANUFACTURING CAPACITY IN MANITOBA?

Firms were also asked whether they had expanded their manufacturing capacity in Manitoba in the last five years, and if so, whether they had considered expanding outside Manitoba instead, and if they had, why they chose to expand in Manitoba. Fifty-four of 95 respondent firms had expanded their capacity in the last five years, by amounts ranging from 3 to 200 percent. Of those 54, 38 did not even consider expanding outside Manitoba. Further, the incidence of "not even considering expansion elsewhere" appears to have little to do with either the scale of the expansion or the relative importance of extraprovincial business in the firm's sales. Tables 30 and 31 summarize this breakdown of responses.

For the 16 firms which considered expanding outside Manitoba (half in the clothing industry and half in the transportation equipment industry) the reasons given for locating the expansion in Manitoba are shown in Table 32. The list of reasons given on the questionnaire is the same as for the question asking about reasons for original location in Manitoba, though respondents were not restricted to choosing just from among those reasons.

TABLE 30

Capacity Expansion and Consideration of Expansion Outside the Province by Manitoba Manufacturing Companies

Considered expansion elsewhere	Scale of Capacity Expansion in Manitoba (%)		
	3 - 20%	25 - 50%	60 - 200%
Yes	6	1	7
No	11	14	8
TOTAL	17	15	15

TABLE 31

Consideration of Expansion outside the Province and Importance of Extra Provincial Sales by Manitoba Manufacturing Companies

Considered expansion elsewhere	Proportion of Sales Outside Manitoba			
	0 - 25%	26 - 50%	51 - 75%	76 - 100%
Yes	4	2	3	7
No	6	5	8	18
TOTAL	10	7	11	25

TABLE 32

Reasons for Expanding in Manitoba
by Manitoba Manufacturing Companies

Reason for Expanding in Manitoba	Number of Firms Responding		
	All Firms	Clothing	Transport Equipment
Access to markets	4	2	2
Availability of labour	4	2	2
Comparative wage rates	1		1
Transportation facilities and costs	1		1
Provincial/municipal tax structure	1		1
Access to government technical or financial support	1	1	
Personal business factors	6	3	3
Personal non-business factors	1	1	
Other factors	1		1
TOTAL FIRMS RESPONDING	14	7	7

There are some major differences between the reasons for original location and the reasons for location of an expansion. Personal, non-business reasons are unimportant in the decision to locate an expansion in Manitoba. Personal business reasons are more important, presumably reflecting business connections of one sort or another. Access to markets is still important, as much so as for the original start-up decision. Finally, input cost and availability factors are mentioned more frequently. Wage rates and taxes are mentioned for the first time in this question. Access to government financial and technical support, transport facilities and costs, and availability of labour are all mentioned as well, though not frequently. There is no difference between the two sectors or among the 16 firms which did consider locating their expansion outside Manitoba. These responses are more similar to the responses in the Fortune survey.

A counterpart to the set of Manitoba firms which considered expanding outside Manitoba, but did not, is the set of Manitoba firms which considered and did expand outside Manitoba. In principle, the reasons for their decisions also shed light on the relative attractions of Manitoba for manufacturing. Only 6 firms had expanded outside Manitoba in the last five years, and all expanded within Canada; 5 in Western Canada, 1 in Eastern Canada. The expansions ranged from 20 to 100 percent. The reasons cited were because of access to markets and anticipated future growth of those markets (3 mentions), availability of labour, taxes, and personal business reasons (1 mention each).

Not much can be inferred from a set of only 6 responses, except that it is relatively rare to see a producer set up shop in other areas. Those that do, clearly tend to stay within the country. The popular image of producers choosing between Manitoba and the low-wage, Third World countries for locating a plant expansion just is not borne out by our data for the typical firm, though it may occur nevertheless for the marginal firm. There probably are other companies

outside Manitoba who would make such a comparison, but apparently none of those within the Province did so in the last five years in these two sectors. In this sense, local capital seems no more mobile than local labour.

2.7 DO MANITOBA MANUFACTURING FIRMS SEE THEMSELVES AS TECHNOLOGICAL LEADERS OR FOLLOWERS IN THEIR INDUSTRY?

There is a strongly held view that the future lies with hi-tech firms in the vanguard of new technology, yet we also know that many profitable companies are getting along with machines essentially unchanged since before the Second World War.

In the two industries surveyed, are the firms what we would consider to be dynamic firms, ahead of their industry and likely to prosper even if their industry does not, or are they merely average for their industry? Two sets of questions bear on this factor.

Respondents were asked when the most recent technological change was introduced into their operation, and when that technology was first available to their industry. Of the 96 relevant firms, 57 either did not know (2) when the most recent technological change occurred, or had made none in recent memory (55). Only 39 firms could put a date on the most recent technological change. The dates ranged from 1973 to 1983, 31 of the 39 being in 1981 or later. Several of these firms did not know when the techonology was first made available to the industry, but of the 21 firms which did know, the date they gave ranged from 0 to 19 years before they introduced it in their own firm. The average lag in introducing the technology was 5 years. This lag seems short, relative to the technological lags referred to in The Bottom Line, but it should be remembered that the 5 year average refers only to those firms which (a) had introduced some new technology recently, and (b) could remember when it was first available to their

industry. Even for these firms, the bulk of their output could still being produced using much older technology, and for the other firms it is quite likely that their production technology is more than five years behind the latest available.

The next best source of information on this topic is the perceptions of the firms themselves about where their technology is relative to either the other Manitoba firms in their manufacturing sector, or relative to their industry at large. Table 33 summarizes these responses.

For all firms together, the technological level appears to be about average relative to the industry as a whole, and only slightly ahead of the average relative to other Manitoba manufacturers of similar products. Since our survey was fairly comprehensive, there is a fallacy of composition in firms on average thinking they are ahead of other firms in the same industry in the province, but the error is not large. When these attitudes are broken down, they show that transportation equipment firms see themselves as relatively more advanced, particularly relative to their Manitoba competition. It might be better to describe their attitude as being that almost none of them see themselves as behind, while two fifths of them see themselves as ahead. The majority see themselves as about average.

There is not much difference between the older and newer firms in this respect. Larger firms do definitely see themselves as more technologically progressive than small firms. Those firms exporting outside Canada also have a slightly higher perception of their technological progressiveness than the average firm, though not by much -- especially relative to the industry at large.

Both sets of responses (to the most recent technological change, and to firms' perception of their own technology relative to their competition) support the idea that these two manufacturing sectors do not owe their success to a

TABLE 33

Self-Perception of Technological Level Relative to Competitors
by Manitoba Manufacturing Companies

A. Relative to Competitors in Manitoba

	All Firms	Clothing	Transport Equipment	Age 0-5 yrs.	Age 21+ yrs.	Small firms (25 empl.)	Medium-size firms (25-100 empl.)	Large firms (200+ empl.)	Exporting firms
More advanced	31	14	17	5	11	7	18	9	13
Same	51	28	23	9	28	23	39	8	18
Less advanced	7	6	1	2	4	5	7	0	2
TOTAL	89	48	41	16	43	35	64	17	33

B. Relative to Competitors in the Industry as a Whole

More advanced	20	12	8	3	8	5	11	6	8
Same	51	22	29	9	28	19	35	11	24
Less advanced	20	14	6	4	8	11	19	1	3
TOTAL	91	48	43	16	44	35	65	18	35

TABLE 34

Perceptions of Progressiveness and Average Annual Sales Growth of Manitoba Manufacturing Companies

A. Perception of Technology in Use Relative To Provincial Competitors	Average Annual Sales Growth (%)		
	0%	1 - 10%	11+%
More advanced	4	9	12
Same	12	15	11
Less advanced	3	1	2
TOTAL FIRMS	19	25	28

B. Perception Relative To Industry at Large			
More advanced	4	5	8
Same	7	13	15
Less advanced	7	6	4
TOTAL FIRMS	18	24	27

technological lead on the rest of the world. Their technology appears to be about average for their industry.

Responses about producers' perceptions of their own technological level relative to (their perception of) that of competitors are not objective data. We think they are useful, but evidence bearing on the accuracy of those perceptions is always useful. One such piece of evidence is that there is some tendency for firms perceiving themselves as more advanced to rise with their average sales growth over the past five years, as one would expect. Table 34 displays the data. The effect is very mild however.

2.8 WHAT SPINOFFS HAVE OCCURRED FROM MANUFACTURING IN MANITOBA?

We asked each firm in the clothing and transportation equipment industries "To the best of your knowledge, has the presence of your firm contributed to the establishment of other firms within the province either by providing a market for these firms or spinning off personnel to start these firms?"

Fifty-eight said no, 4 did not know, and 34 said yes. For the 34 saying yes, they were asked how many of the spinoff firms were in manufacturing. Their responses are shown in Table 35. The responses suggest that spinoffs are important even though only one third of the firms generate any at all. The average firm generating spinoffs leading to the start-up of new firms generates almost three firms. The total of firms spunoff comes to 99 in just these two sectors. There is little difference between sectors, but there is between firms of different size and age. Older firms have had more time to generate spinoffs, so they average 4.7 spunoff firms each, while the newer firms averaged only 1.4 firms each. Surprisingly, a larger proportion of the newer firms do generate spinoffs, which suggests that these spinoff benefits may become even more important in the future than in the past.

Not surprisingly, the small firms with less than 25 employees do not generate many spinoffs; fewer small firms generate any at all, and those that do so tend to generate fewer than average. Firms exporting outside the country, on the other hand, generate a higher than average number of spinoffs from a higher than average proportion of firms. One would expect the more technologically advanced firms to be doing a disproportionate share of the spinning off, but that does not appear to be the case. The more advanced firms seem to have very few spinoffs per firm. This cannot be due to the more advanced firms being younger, since we have seen that there is no correlation between age of firm and perception of technological status.

One caveat to these results on spinoff benefits which should be kept in mind is that only 23 firms indicated they existed as the result of spinoff activity. Yet the responses here indicate that 99 firms have been started in Manitoba manufacturing as a result of spinoffs from existing firms in the clothing and transport equipment sectors. There is a large disparity. It could be that the firms started by spinoffs do not think of themselves as such (a refusal to acknowledge their true roots), or that they are in different sectors than the two focussed on here, but both reasons do not seem adequate to explain such a huge difference. The number of spinoffs may well be exaggerated.

TABLE 35

Generation of Spinoff Firms by
Manitoba Manufacturing Companies

	All Firms	Clothing	Transport Equipment	Age 6-20 yrs.	Age 21+ yrs.	Small firms (1-24 empl.)	Large firms (200+ empl.)	Exporters	More Advanced rel. to province	More Advanced rel. to industry.
Percentage of firms generating any spinoffs	37	39	35	50	34	18	59	51	39	47
Total of firms created by spinoff	99	52	47	20	75	14	32	63	9	7
Rate of spinoff per generating firm	2.9	2.7	3.1	1.4	4.7	2.0	3.2	3.5	0.8	0.8

SECTION 3

THE IMPORTANCE OF ENTREPRENEURSHIP

3.1 WHO ARE THE ENTREPRENEURS?

The word entrepreneur has historically meant "organizer" but the concept of entrepreneurship means more than organization. It implies the creation of an economic enterprise. It suggests a synergistic bringing together of human, physical, and financial resources for this purpose. It means new products or processes, new markets, new jobs, new ideas, and new sources of profit. Collins and Moore view the independent entrepreneur as "a man who has created out of nothing an ongoing enterprise."[3] This view is shared by Bruce who states "the independent entrepreneur may be identified as an individual whose decisions directly determine the fate of a commercial enterprise over which he exerts control by reason of shareholding and in which he operates as an executive policy maker."[4]

From an operational standpoint any firm started as an independent company and not as a branch or subsidiary of another operating company can be considered entrepreneurial. This definition can be expanded somewhat to include branches and subsidiaries that either make different products or employ technologies that are not used elsewhere by the parent firm. Firms meeting these criteria serve as the basis for our entrepreneurial sample.

Following this definition 88 or 91.7% of the 96 responding firms can be considered entrepreneurial in character. This includes 48 or 94.1% of the 51

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[3]Collins, O. and D. Moore, The Organization Makers. (New York: Appleton-Century-Crofts, 1970), p. 85.

[4]Bruce, R., The Entrepreneurs, (Bedford: Libertarian Book Ltd., 1976), p. 42.

respondents in the clothing industry and 40 or 88.9% of the 45 respondents in the transportation equipment industry. All entrepreneurial firms in the clothing industry were started as independent companies as were 38 of the 40 entrepreneurial firms in transportation equipment. Two of the transportation equipment companies were subsidiaries that performed manufacturing operations unique to the firm at the time of start-up.

This high proportion of entrepreneurial firms in both industries suggests that whatever manufacturing capacity Manitoba has developed in these sectors is largely home-grown and developed at the initiative of individuals resident in the province rather than imported in the form of branch plants or subsidiaries.

This high proportion of entrepreneurial activity also makes comparison with other branch plants and subsidiaries difficult because of the small sample of these non-entrepreneurial firms. These companies stand out as individual entities rather than as a homogeneous group because of their sparse numbers. In most cases the conclusions for the entrepreneurial group are not significantly different from the industry as a whole.

3.2 YEAR OF START-UP

The non-entrepreneurial firms tend to be of more recent vintage than the entrepreneurial group. While both groups have some long established firms, founded in 1877 and 1898, 63% of the non-entrepreneurial have been started since 1970 in comparison with only 28% of the entrepreneurial group. Thirty-eight percent of these entrepreneurial firms have been in business in Manitoba for more than thirty years. Still, most of the firms founded since 1970 are entrepreneurial. Twenty-eight firms have been founded since 1970; 24 of these are entrepreneurial and 23 of these are independent.

3.3 WHY ARE THEY LOCATED IN MANITOBA?

The primary reasons for locating in Manitoba are economic in the case of the non-entrepreneurial firms and non-economic in the case of the entrepreneurial firms. Fifty percent of the former group indicated access to markets was the primary factor for their initially deciding to locate in the province. This factor was indicated as being of primary importance by only 12% of the entrepreneurial group with 68% indicating personal non-business factors such as individual preference and location of family were predominant in their location decision.

3.4 SIZE OF FIRMS

Based on their number of employees a larger proportion of entrepreneurial firms can be considered small businesses. Forty-four percent of the entrepreneurial group have less than 25 employees in comparison with only 13% of the non-entrepreneurial group. Similarly forty-eight percent of the entrepreneurial companies have less than $2 million in sales while none of the non-entrepreneurial companies fall into this category.

The average rate of sales growth over the past 5 years does not appear to differ significantly between the two groups; 15% for the entrepreneurial firms versus 18% for the non-entrepreneurial. All non-entrepreneurial respondents have experienced positive growth during this interval with a range from 0 to 100 percent. A small number of entrepreneurial respondents experienced negative growth over this period but 88% of these companies indicated an average annual growth rate of from zero to 20%.

3.5 DISTRIBUTION OF SALES

It can be seen from Table 36 that entrepreneurial firms are more reliant on the Manitoba and Western Canadian markets for their sales than the non-entrepre-

TABLE 36

Average Distribution of Sales by Manitoba Manufacturing Companies

	Entrepreneurial	Non-entrepreneurial
	%	%
Within Manitoba	40	21
In Eastern Canada	21	33
In Western Canada (outside Manitoba)	29	23
In the United States	9	20
Elsewhere in the World	1	3
	100	100

neurial. On average the former companies derive 69% of their sales from west of the Ontario-Manitoba border in contrast to 44% for the non-entrepreneurial firms.

The non-entrepreneurial are more export oriented with 23% of their sales coming from foreign markets as opposed to 18% for the entrepreneurial companies. In both cases these exports are predominantly to the North Central region of the United States.

Exports to countries elsewhere in the world outside the United States are not important to companies in either category. No individual firm exports more than 30% of its total sales to these offshore markets and only 11% of the entrepreneurial and 13% of the non-entrepreneurial companies sell any of their Manitoba production abroad.

3.6 EXPANSION OF MANUFACTURING CAPACITY

Firms in both categories have expanded their manufacturing capacity within the past 5 years. In the case of entrepreneurial firms, 58% expanded their capacity within the province while 6% expanded their capacity outside Manitoba. Non-entrepreneurial firms followed a similar pattern with 63% expanding in Manitoba and 13% in some other area. These additions to capacity typically ranged from 20 to 100% of their present capacity levels. Expansions outside the province were almost universally somewhere else in Western Canada. Surprising, less than half the firms that expanded even considered expanding outside the province, although a slightly higher proportion of the non-entrepreneurial firms, 40% vs. 29%, did, at least, look at this option. Their primary reasons for deciding to stay in Manitoba related to personal business factors and better access to their markets. Some respondents also considered the local availability of labour as a secondary factor.

The primary sources of funds used by each category of firm to fund their expansion project is indicated in Table 37. The majority, 60%, of entrepreneurial firms funded at least part of their future expansion costs from retained earnings. This source was not used by the non-entrepreneurial companies. Undoubtedly large relative levels of retained earnings are not allowed to accumulate in an operating subsidiary but are transferred in the form of dividends or in some other manner to the parent organization. Some of these funds may be returned to the subsidiary as required, as indicated by the fact 33% of the non-entrepreneurial firms received some support toward the cost of their expansion from head office.

Non-entrepreneurial firms were more extensive users of government assistance programs (67% vs. 29%). This may be attributable to their somewhat larger average size and the advice and planning assistance available from their parent organization. It may also be attributable to constraints in the supply of governmental assistance which make it more likely non-entrepreneurial firms will receive assistance.

Increased debt is a popular source of funds for firms in both categories. Two-thirds of the non-entrepreneurial companies and 46% of the entrepreneurial raised some money in this manner to finance their expansion. In both cases this debt financing was provided almost exclusively by the chartered banks. In no instances did firms in either category raise additional equity capital either privately or through a public stock offering to finance an expansion in their manufacturing capacity.

3.7 LEVEL OF TECHNOLOGICAL SOPHISTICATION

Of the entrepreneurial firms only 32% felt the level of technology used in their plant is more advanced than that used by other firms producing similar products within the province. This compares with 83% of the non-entrepreneurial companies.

TABLE 37

Sources of Funds for the Expansion of Manufacturing Capacity by Type of Firm

Source	Percent Using*	
	Entrepreneurial	Non-entrepreneurial
	%	%
Retained Earnings	60	0
Head Office	2	33
Government Assistance Program	29	67
Additional Equity Capital	0	0
Increased Debt	46	67

* Total is higher than 100% because more than one source can be used to fund an expansion project.

On the other hand, nine percent of the entrepreneurial companies felt their technology was less advanced than competitive firms while none of the non-entrepreneurial companies had this view of their technological situation. In relation to their industry at large only 13% of the non-entrepreneurial firms consider their technology to be more advanced in comparison with 23% of the entrepreneurial companies. It's difficult to explain the dramatic drop in the view of the non-entrepreneurial respondents in contrast to the entrepreneurial group. Due to their affiliation with a parent organization these subsidiaries may be better informed of competitive conditions on a broader scale than locally-based independent companies and, therefore, more realistic in their assessment.

3.8 FUTURE GROWTH

Non-entrepreneurial firms appear to have a much more optimistic view of the future than entrepreneurial firms. They feel their firms will grow by an average of 28% annually; a rate considerably higher than their growth expectation for their industry as a whole (Table 38). The entrepreneurial firms also feel that, on average, their company will grow at a faster rate than their industry but are more conservative in their estimate of both growth rates. Despite the more conservative overall estimates these companies feel their growth will outstrip that of the industry by a larger margin than their non-entrepreneurial counterparts (11% vs. 8%).

3.9 WHAT HAPPENS TO ENTREPRENEURIALLY-FOUNDED FIRMS?

Companies founded by independent entrepreneurs in Manitoba tend to remain independent rather than being taken over by some other firm. This is particularly true of the clothing industry. Of 48 companies that indicated they were independent companies at the time of start-up, 47 are still independent. Owner-

TABLE 26

Expected Future Annual Growth Rate
by Type of Firm

	Annual Percentage Growth	
	Entrepreneurial	Non-entrepreneurial
Firm	17	28
Industry	6	20

ship of the firm may have changed since the founding of the company but they have not been merged with or become subsidiaries of another operating company.

The transportation equipment industry presents a slightly different picture although most of the entrepreneurially-founded firms have remained independent in this industry as well. Of 38 respondents that were founded as independent companies 31 or 82% are still independent while 7 are now branches or subsidiaries of another firm.

3.10 CONCLUSIONS

The very high proportion of entrepreneurial firms in both the clothing and transportation equipment industries suggests that the prime reason for the very existance of these manufacturing sectors in Manitoba is the activity of individual entrepreneurs rather than any innate comparative advantage Manitoba may have in relation to other areas.

Personal non-business factors are by far the most important stated reason for the location of companies in the province. This includes such considerations as personal preference, location of family and friends, and the fact the founder happened to be resident in the province at the time the firm was founded. This is in contrast to other research which has considered management decisions concerning plant location to be principally economic in nature.[5] This would appear to be true for the establishment of branch plants and subsidiaries but noneconomic considerations dominate the location decision in the minds of independent entrepreneurs.

Entrepreneurial firms tend to have a strong local focus deriving 40% of their sales in Manitoba and 60% from Western Canada. Only 36% of these companies have any sales outside Canada and only 11% sell manufactured products offshore

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[5] see, for example, Tumbari, E.A., Economic and Noneconomic Factors Affecting Plant Location Decisions, American Journal of Small Business, Vol. III, No. 4, April, 1979, p. 23-30.

beyond the boundaries of Canada and the continental United States. Only 18% of their sales are derived from exports.

The picture that emerges of entrepreneurial companies is quite diverse. Many are small and slow growing but a number now have in excess of 500 employees and sales of more than $20 million. The majority have had occasion to expand their manufacturing capacity in the province within the past 5 years but view themselves as primarily servicing a local, regional market.

Less than one third feel that the level of technological sophistication of their manufacturing operation is more advanced than that employed by their competitors within the province and across the industry at large. Yet they have a conservative but very optimistic view of the future feeling that, on average, the annual growth rate of their companies will be almost three times that of the industry in general.

SECTION 4

POLICY IMPLICATIONS

4.1 THE NEED FOR ASSISTANCE

What, if anything, can federal and provincial governments do to improve the performance of the manufacturing sector as a means of generating jobs and income growth in the future? We have already mentioned in Section 1 that while the manufacturing sector is important in Manitoba, it is not nearly as large as the service sector and, therefore, not likely to be effective as the main focus of policies aimed at job creation. Nevertheless, the manufacturing sector's success is important to both employment and incomes in the province.

Our findings from the clothing and transportation equipment sectors do not reveal any obvious need for government assistance. The firms in the industry have not made extensive use of government assistance in the past, and the two sectors appear to have prospered at least as well as the national average for manufacturing despite having no obvious comparative advantage. Government assistance accounted for only 18 percent of the total cost of the most recent plant xpansions in these sectors, and new entries in each industry occur with considerable frequency.

The new entry data are hard to interpret within the framework of the data on entry and exit in manufacturing that was produced in The Bottom Line. New entries between 1970 and 1979 which had survived to the date of our survey amounted to 36 percent of the number of firms in 1970 -- exactly the rate of new entry for Canadian manufacturing as a whole as cited in The Bottom Line. We have no mesure of the death rate of firms in either sector, other than that one of the larger clothing manufacturers closed its Winnipeg factory shortly after the survey and eliminated 250 jobs. The average annual growth rate of value added in clothing

and transportation equipment has been close to or above that of Manitoba manufacturing as a whole since 1966, which suggests that the new entries have more than compensated for exits of existing firms.

On the other hand, the limited evidence available suggests that Manitoba's productivity is lower than elsewhere in the West, and its wage rates do not appear to be sufficiently lower to compensate. This suggests a precarious position for Manitoba manufacturing, where policy assistance of various sorts might make the difference between prospering and merely holding on.

The logic of The Bottom Line suggests that policymakers should concentrate on stimulating new entry and expansion of existing firms, rather than on propping up existing firms to lower the exit rate from an industry; the relative decline of the slower-growing sectors is apparently due to a slower rate of entry of new firms and not to a more rapid rate of exit. This logic is consistent with the relative expectations of newer versus older firms in our survey, even if not necessarily with their performance. Tables 18 and 19 show that the smaller, newer companies are more optimistic about their own prospects and those of their industry than are the larger, older companies. The extra optimism may not be justified, but we believe the small companies will continue to have the best prospects in future years.

A policy to buttress weaknesses should, therefore, be aimed at the larger, older companies. A policy to build on strength should be aimed at the smaller, newer firms. Almost all of the companies in our survey are independent, so there is little to say about the differences between entrepreneurial and non-entrepreneurial firms. It is clear that almost all of the government assistance to date has been used by the older firms and, therefore, by the relatively pessimistic group of Manitoba manufacturers. Nearly one-half of the firms 20 years old or more received government assistance for their most recent expansion, while only 4

of the 30 newer firms received such assistance. This can be justified by a policy of job preservation, but it would not appear to be a policy aimed at backing tomorrow's best hopes for substantial growth and expansion.

If government assistance is to be provided, it can be provided in one or more of three broad categories: in marketing assistance, in production assistance, and in financing. Policies available to governments to assist in these three areas will be considered below under these three headings.

4.2 MARKETING ASSISTANCE PROGRAMS

Market oriented policy prescriptions that should be considered to promote domestic manufacturing industries include export development assistance programs, procurement and public tendering policies, directed offset programs, import quotas and tariffs, and free trade agreements. These policies are intended to inform manufacturers about, and provide some additional capability to capitalize on, existing market opportunities; to protect manufacturers from foreign competition; or to give manufacturers a comparative advantage in competing for the business of certain customers.

Export Development Assistance Programs

Manitoba manufacturers are already heavily dependent on sales to other provinces and outside of Canada. In 1979, 56 percent of manufacturing output was exported outside the province with almost 11 percent going outside the country.

Many survey respondents, particularly the smaller, younger firms, were quite bullish in their growth expectations for the next few years. However, the lack of large investment projects slated for Manitoba in the next decade, coupled with slow population growth and possible outmigration, suggests the average annual provincial growth rate in the near future will be relatively low. This,

in turn, suggests that Manitoba manufacturers will have to develop their export potential even more than to date in order to achieve their growth objectives.

A number of the responding firms presently did not sell a significant portion of their output outside the province and only a few did any significant amount of exporting outside Canada. The competitive position of firms in a number of other sectors is summarized in Figure 1.

Extraprovincial sales will become more important in the future as firms grow and exhaust their Manitoba market opportunities. However, recent forecasts suggest the other western provinces, the most important and easily accessed extraprovincial market for Manitoba products, will also grow more slowly in the future. It is also possible Canadian tariff reductions resulting from the Tokyo Round, while not having a significant impact, could further erode western Canadian market opportunities. A stronger export orientation and additional incentives to encourage export activity will, therefore, be necessary if Manitoba manufacturers are to continue to expand and prosper.

The present limited level of international exports can be partially attributable to lack of information regarding export market opportunities and an aversion to exporting by many firms due to the perceived complexity of export transactions and the time and cost involved in researching and developing export markets.

In addition, little or no export marketing assistance for small business is available through Federal government programs. With the exception of the Program for Export Market Development (PEMD), all other initiatives such as the Export Development Corporation, are geared toward large companies.

This would indicate a strong need for federal-provincial cooperation to support Manitoba firms having the potential to enter export markets. Since the majority of these firms will be small, these export development programs should

Figure 1

COMPETITIVE POSITION - SELECTED MANUFACTURING SECTORS IN MANITOBA

SECTOR	FIRMS	EXPORTERS*	COMMENTS
Aerospace	6	6	- Export oriented. - Some branch plants vulnerable.
Agricultural Equipment	100	nearly all	- Export oriented (20% of Manitoba exports). - Mainly small and medium sized. - Interested and competitive in international markets (U.S., Australia, etc.) - Duty free access to U.S. - Threatened by increased offshore competition, recession and U.S. PIK program. - Alberta and Saskatchewan promotional programs more aggressive
Electrical Products	35	27	- Diverse sector, limited export market penetration. - Some firms competitive internationally.
Furniture and Fixtures	34	34	- Transport costs limit exportability of upholstered furniture to Eastern Canada or U.S. - Western Canadian market share declining due to new Alberta and B.C. sources. - Contract furniture (4 firms) competitive throughout U.S.
Health Care Products	16	3	- Small diverse group. - Some firms competitive in U.S. and EEC.
Machinery	41	26	- Some larger firms competitive worldwide. - Smaller firms have export interest.
Metal Fabricating	136	31	- Diverse sector. - Many firms oriented to custom work. - Many firms competitive in Western Canada, some in U.S. and/or other markets.
Transportation Equipment	63	11	- Bus manufacturers threatened by "Buy America." - Mix of large and small firms.

SECTOR	FIRMS	EXPORTERS*	COMMENTS
Processed Foods and Beverages	254	54	- Mix of large and small firms. - Many firms not competitive in U.S. due to high Canadian input costs. - Some non-exporters potentially competitive in Western Canada or U.S.
Clothing	135	nearly all	- 85% of shipments exported. - Approximately 10% of exports to U.S. and other foreign markets. - Principal foreign market is U.S. - Limited potential in EEC.

* Defined broadly to include companies shipping out-of-province.

Source: Outlook Overview, Department of Economic Development and Tourism, Province of Manitoba, 1983.

be few in number and simple in concept or the participation rate will likely be low.

A Science Council of Canada study of threshold firms indicates that in the transportation equipment industry the cluster of threshold firms is, in fact, in the prairies rather than central Canada.[6] Similarly, the clothing industry would appear to have two principal centres in Montreal and Winnipeg, rather than a core in Montreal and a periphery in the rest of the country. Of the two centres, Winnipeg seems to be the more progressive and least dependent on government imposed quotas and other forms of protection.

These firms, Steed argues, have tremendous potential as exporters but face a number of problems which may require some assistance from government. They may not be able to attract and keep the specialist skills they need; they may have cash-flow problems, particularly when serving export markets; and they usually find it difficult to achieve economies of scale in production and distribution.

To support the export thrust by these companies he suggests the federal government:

- introduce measures to overcome or significantly reduce tax disincentives to exports. This could include deferred treatment of foreign income for tax purposes and preferential tax treatment of Canadians employed overseas in marketing and contracts.
- offer nonrepayable contributions to assist with consulting, legal and financial costs incurred in acquiring small and medium-sized foreign firms or entering into domestically controlled joint ventures.
- broaden the interpretation of what constitutes research and development to incorporate more types of exploratory development work, trial production and engineering follow-through.

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[6]Steed, Guy, "Threshold Firms: Backing Canada's Winners" Science Council of Canada, Background Study No. 48, 1982.

Manitoba's principal foreign market is the United States - specifically the North Central region. Short-term efforts should be directed at boosting export sales to this region. Longer-term prospects could include the remainder of the U.S., Pacific Rim countries and Western Europe. One strategy suggested to boost exports is for Canadian manufacturers to concentrate on more highly specialized market segments. For example, winter clothing has been suggested as a likely niche for the Canadian industry.[7] With a number of firms well established and nationally known for their winter outerwear, and the Canadian Outerwear Fashion Fair established as an international trade fair, the nucleus to start such a specialized approach to foreign trade would already seem to exist in Manitoba.

Procurement and Public Tendering Policies

One approach frequently suggested to increase opportunities for small, local business is the implementation of procurement and public tendering policies directed at substituting for imported goods and services. There have been many instances of public pressure and action by lobby groups and trade associations to promote local purchasing. At the provincial level this has created a lot of fragmentation within the Canadian market for institutional purchases. British Columbia and Quebec, for example, have direct price preferences for public purchases of local goods. Ontario has a price preference for Canadian produced goods which may preclude out-of-province suppliers in many cases by virtue of transportation costs. Manitoba has also recently announced a modest purchasing preference policy.

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[7]Financial Post, "Capitalizing on Canada", Report on the Nation, November, 1983, pp. 40.

This trend may limit the ability of individual firms to pursue the Canadian market at large. It leads to an attitude of exclusivity and may inhibit domestic co-operation amongst firms in different provinces or regions. As a result, such policies to restrict domestic competition at the provincial level are undesirable from the perspective of Manitoba manufacturing industries.

Other research has indicated that local businessmen do not believe their provincial government should pay a premium for products purchased from resident companies.[8] They do, however, feel they should have a fair opportunity to compete for this business and government purchasing policies sometimes work against them, particularly smaller firms. For example, difficulties in getting included on the bid list for products produced by their company, the view of government purchasing agents as being strictly price buyers rather than following return on investment purchasing standards, and the effect of government slow payment practices on their cash flow position are commonly cited problems.

Information programs and seminars to make local firms aware of the requirements of municipal and provincial governments and other crown agencies, and sourcing books to inform public purchasing agents of possible local sources of supply for various manufactured products may be just as effective in stimulating local industry. They would also eliminate the discrimination against other Canadian firms inherent in purchase preference policies.

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[8] Sarkar, A.K. and J. Dart, "Entrepreneurship in Saskatchewan", Saskatchewan Department of Industry and Commerce and Saskatchewan Chamber of Commerce, November, 1977, pp. 45-48.

Directed Offset Programs

Offset arrangements similar to Canada's New Fighter Aircraft Program and Canadian Patrol Frigate Program are becoming common in defence products trade. A common complaint among western Canadians is that a disproportionate share of the benefits from such deals go to Ontario and Quebec. Notwithstanding these complaints directed offsets can serve as an effective stimulant for local manufacturing.

The same principle also applies at the provincial level. Negotiated offsets from major provincial projects could be an important vehicle for promoting the growth of the small business sector within the province.

Import Quotas and Tariffs

The Tokyo Round of tariff reductions will result in substantial reductions in Canadian tariffs when the cuts are completed in 1987. At the same time protectionism, quotas, and other bilateral agreements to limit imports may threaten the international trading system established under G.A.T.T. The clothing industry is an excellent example of this situation.

In 1982 total Canadian clothing shipments declined 6%. A number of survey respondents indicated their sales in units or dollars have declined for the past several years and future prospects were just as dismal. They would be happy to merely maintain sales at current levels. Imports, they feel, have been largely to blame for this situation and more stringent import quotas are essential for the continuing survival of their industry.

In response to these sentiments the federal government sent missions to Hong Kong, China, Taiwan and South Korea twice during 1983 to renegotiate bilateral agreements with these countries but without success.

While certain segments of the domestic industry may perceive the need for reducing access to the Canadian market by foreign clothing manufacturers these

would appear to be principally the larger, older companies. Small companies are more optimistic about their own prospects and those of their industry, as they define it. Those firms who export abroad and have sufficient sales volume to justify state-of-the-art production technology and, therefore, low unit costs are also quite bullish regarding their future prospects. They see import restrictions as being less essential for their success.

Increasing restrictions on imports may also have broader implications for the country as a whole. Manitoba manufacturers need to expand their export activities. While the United States is by far our most significant export market there is undoubtedly significant future potential in the developing nations around the Asian side of the Pacific Rim. Clothing forms a significant proportion of what we import from these Asian producers. Any moves we make to restrict their imports could have a significant effect on our efforts to increase sales in their markets.[9]

The concept would appear to be worth considering as a policy option, however. The agricultural equipment industry enjoys duty free access to the United States and is the most export oriented of any Manitoba manufacturing sector, accounting for 20 percent of all Manitoba exports.

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[9]Gooding, W., "Charting Our Trade Course for the 1980's", Financial Post, Report on the Nation, November, 1983, pp.52.

4.3 PRODUCTION ASSISTANCE PROGRAMS

Production assistance can take the form of reducing the costs of inputs, increasing the availability of these inputs, or assisting in the generation or diffusion of new production technology.

Labour Subsidies and Retraining

The costs of inputs can be reduced in many ways. A wage subsidy, either for all workers for some period, or for new employees, would lower labour costs, lower capital:labour ratios, and generate more employment per dollar of value added. Labour productivity would of course fall, but that would still be an improvement if the alternative for the labour was unemployment.

Labour retraining schemes of the federal and provincial governments can increase the supply of workers with certain specific kinds of skills, though of course it requires considerable foresight to have the skills already available when the need for them arises. Where severe shortages occur, loosening immigration restrictions is effective and quickly adjustable.

Our survey of two manufacturing sectors suggests that retraining is more important to these firms than wage subsidies. Table 32 identified four respondents indicating the availability of labour as a primary reason for expanding their manufacturing capacity in Manitoba, but only one respondent cited comparative wage rates. Where employers are considering a long-term relationship with an employee, in "career" labour markets, the benefit from a short-run wage subsidy is likely to be considerably smaller than the longer-lasting benefit derived from the availability of more suitable (i.e. more productive) labour. This is not to say that firms will not like a wage subsidy, because they will like anything which lowers costs and does not constrain them too much in other ways.[10]

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[10]Dallas R. and Norman Cameron, "Businessmen Rate Stimulatory Options," Canadian Business Review, Spring 1980, pp. 33-35).

It is only to assert that the effect on new entry will be larger from increasing the availability of labour than from temporary wage subsidies. Permanent wage subsidies might be just as effective as the provision of suitable labour, but it would be difficult to convince employers that any wage subsidy scheme would last long in today's fiscal climate.

Subsidies for Non-Labour Costs

Freight rate subsidies, a freeze on utility rates, a freeze or even a holiday on property taxes, and lowering the cost of imported components by remission of import duties (or even by appreciation of the Canadian dollar) would all lower costs as well. Only two firms in our survey identified transport costs or taxes as reasons for expanding their capacity in Manitoba (and very few even considered locating elsewhere). The same remarks, therefore, apply to these cost-reducing measures as apply to wage subsidies. Any policy of allowing appreciation of the dollar would of course have perverse effects on aggregate demand, though these might not be perceived by domestic manufacturers selling mainly in the domestic market.[11]

Technological Assistance

The policy suggestion emerging from The Bottom Line is assistance with developing and diffusing new technology. Generous tax write-offs of research and development expenditures; provision of expert assistance by the National Research Council, the Manitoba Institute for Manufacturing, the Microelectronics Centre at the University of Manitoba, the Industrial Technology Centre and by the Canadian

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[11] Bellan and Cameron, op. cit. In this study few of the respondents realised the impact of higher interest rates on demand levels, but all realized the effect on their own costs.

Food Products Development Centre; by subsidies to enable firms to send people and exhibits to trade shows, faster write-offs of existing equipment, and investment tax credits will all push firms to invest more in new technology.

Our results suggest that policies to support new technology specifically will have limited importance in the expansion of existing firms. Only one firm cited the availability of technical support as their reason for expanding in Manitoba. Furthermore, none of those expanding outside Manitoba gave it as a reason for expanding elsewhere. On the other hand, existing firms have already mastered the technology of their industry, by and large, so that this technical assistance could well be less important for them than for new entrants. Many of the new firms in Manitoba have been spinoffs from existing firms, and it is possible that government technical assistance to the parent firm could have been vital in generating the expertise and confidence to allow the spinoffs to occur.

Our results on the perceived backwardness of the two Manitoba sectors are relevant here. These responses were reviewed in Section 2. The lag in the introduction of new technology seems relatively short, and firms' perception of their own technological level (relative to their industry) suggests that they feel about average for their industry -- or even ahead, in the transportation equipment industry. That still leaves some room for improvement, of course, but does not suggest that firms are hungry for technical assistance to overcome a technology gap. Assistance might be offered, but not taken up, especially if the rules were too complex for small firms most likely to be in need of such assistance.

An additional piece of evidence is the lack of any activity by provincial trade associations to help their member firms overcome any perceived isolation -- such as pooling resources to bring in new technology for demonstration. The transportation equipment industry has no provincial organization at all, and the

association in the clothing industry is viewed by its members as primarily a lobbying body with some additional social functions.

4.4 FINANCIAL ASSISTANCE PROGRAMS

Financial assistance to firms can take a number of forms. There are many possibilities so this discussion is restricted to major categories of financial assistance without examining all the variations. Among the possibilities considered here are the Industrial and Regional Development Program (IRDP) grants, venture captial programs, tax policy, interest rate subsidies and Small Business Development Bonds.

Industrial and Regional Development Program (IRDP)

The IRDP is a comprehensive program of industrial assistance designed to replace a number of programs with a coordinated and consistent approach to industrial development. The program has changed the way in which assistance to firms will be calculated. Several areas in Manitoba, including Winnipeg, are designated Tier 1 areas. To be eligible for assistance in Tier 1 areas, projects must have a value of at least $250,000. The provincial government has calculated the number of grants under the previous program that would not be received under the new IRDP program. Tier 1 designation for Winnipeg alone would have eliminated 70 percent of the new projects assisted and extending the Tier 1 designation to regional centres would have eliminated 76 percent of new projects. By value, the percent of new projects eliminated is 47 and 56 percent respectively.

These findings are generally consistent with our survey results. More than half of the projects undertaken by the firms included in the study were projects with a value less than $250,000. These projects will generally be excluded under the new ITC/DREE guideline for Tier 1. Consequently, it is reasonable to suggest

that industrial location grants in Manitoba will be fewer in number and probably unavailable for small business under the IRDP program.

However, it is possible that these government grant programs have not been as crucial as might be suggested. In the survey, the total value of government assistance is only 18% of the total value of the most recent plant expansions by respondents. This is, in our view, not as large as might be expected. Of course, the small value of government assistance might still be crucial at the margin. However, there is doubt about how effective marginal subsidies can be, both in theory and in practice.[12] This scepticism is justified for Manitoba as well. One-third of the current employment in manufacturing, approximately 20,000 jobs, is associated with projects which received assistance. Yet, net employment in the sector increased by only 5,000 jobs during the period.[13] In most projects reported by our respondents, it is doubtful that regional development incentives were crucial, at the margin, in deciding on the most recent plant expansion.

Venture Capital Firms

Another possibility is to provide more assistance through venture capital firms. This could be done by providing more liberal tax breaks or other incentives for venture capital firms. Ontario, Quebec, Nova Scotia, Prince Edward Island and Manitoba all have provincial legislation to encourage the establishment of venture capital firms in their provinces. Such a policy is desirable if

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[12] Springate, David, Regional Incentives and Private Investment, (Montreal, C.D. Howe Research Institute, 1973) and Usher, Dan, "A Critique of the Canadian Program of Subsidizing Investment in the Less-Developed Regions," Discussion Paper no. 145. (Kingston, Ontario, Institute for Economic Research, Queen's University, 1974)

[13] "Subject: Industrial and Regional Development Program (IRDP)," (Winnipeg, Manitoba, Department of Economic Development, undated, 1983).

it can be shown that firm expansions are constrained by a shortage of equity funding and firms are willing and able to accept equity funding from a venture capital firm.

There is litle evidence that the respondents to our survey experienced a shortage of equity funds. In the last ten years, there have been 54 plant expansions in Manitoba and six expansions outside of Manitoba among the companies surveyed. In none of these cases did a respondent acknowledge raising any additional equity capital to finance the expansion. If firms were constrained by a shortage of equity funding, it seems reasonable to expect that some additional equity would be reported, if only from existing shareholders. It may also be that firms are simply unwilling to accept equity funding. This may be due to the fact that the vast majority of respondents are independent, private firms. These firms are least likely to surrender blocks of stock in exchange for funds. However, regardless of the reason for not using additional equity funding, the evidence suggests that in the manufacturing sector at least, venture capital firms are not likely to help firms when no apparent shortage of equity can be identified.

Tax Policy

A variety of tax incentives are possible to assist manufacturing in Manitoba. Most of them have been tried at one time or another in Canada. These include accelerated depreciation, investment tax credits, differential capital cost allowances and tax reductions. Bird has documented the current situation and reviewed the existing evidence on their effectiveness.[14]

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[14]Bird, Richard M., Tax Incentives for Investment: The State of the Art (Toronto, Ontario, Canadian Tax Foundation, Canadian Tax Paper no. 64, 1980)

First, accelerated depreciation is already so prevalent in manufacturing industries that it is difficult to make the write-offs more liberal. At present, all assets used in manufacturing are eligible for a two year straight line write-off and the tendency has been to broaden, not restrict, the availability of such favourable treatment. Accelerated depreciation encourages the firm to substitute capital for labour since it effectively lowers the cost of capital investment relative to labour. Accelerated depreciation also lowers the effective tax rate of the firm by granting an interest free loan. For a growing firm, the interest free loan can become a permanent tax reduction since the loan may never be repaid. In theory, further liberalization of depreciation allowances might stimulate investment but such a policy may not stimulate employment. If the ultimate objective is to stimulate employment, it is probably better to do it directly rather than indirectly through capital investment subsidies. Furthermore, there is even some reason to doubt whether the capital investment subsidies are successful in stimulating investment.

Second, investment tax credits may possibly be of some assistance to manufacturing. Manufacturing is currently eligible for a 7 percent investment tax credit in Canada. Bird notes that redirecting the sales tax on equipment is analytically identical to the investment tax credit since both reduce the net cash outlay to purchase equipment.[15] Firms like such policies since they reduce their costs. Bellan and Cameron found that Manitoba businessmen were particularly receptive to cost reducing measures.[16] However, whether businessmen's preferences for cost reducing tax policy translates into a cost-effective

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[15] op. cit., pp. 8

[16] op. cit., pp. 34

tax stimulus is a questionable point. There is serious doubt that it does.[17]

A third tax policy option is to lower tax rates for the manufacturing sector. In fact, this is already done with manufacturing profits receiving a tax reduction of 6 percentage points and an additional 6 percentage points if the manufacturer is a small business. Conceivably further tax cuts could be introduced. The Bellan and Cameron survey results suggest that businessmen would like such a policy. It must be noted that manufacturing is already treated preferentially when compared to most sectors. However, there is some evidence that a corporate income tax cut is more effective than more liberal capital cost allowances in stimulating investment.[18]

All of these tax policy options are possible. Our survey results do not enable us to evaluate their likely impact on the responding firms. However, there is evidence available from other survey and econometric studies which raises serious concerns about the effectiveness of these tax policy stimuli.[19] Certainly the opinions are not conclusive in either direction so serious study should be given to this matter before introducing more tax policy incentives of questionable value.

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[17]Johnson, J.A. and W.M. Scarth, (1979) "Tax Expenditures for Business Investment: Their Effectiveness and Their Beneficiaries", Canadian Taxation, v. 1, p.4.

[18]Bird, op. cit., pp. 38.

[19]Ibid, Chapter 5.

Interest Rate Subsidy

Another policy option is interest rate subsidies. This subsidy would reduce the costs of manufacturing and, on these grounds, businessmen would be receptive to such a policy. Bellan and Cameron found that it was the cost reducing aspect of interest rate subsidies, rather than the demand stimulating aspect to which businessmen responded. Such a conclusion suggests direct policy stimuli are more likely to be effective. Also, since the rise in interest rates in 1979, it has become more important for firms, particularly firms which finance heavily with debt, to consider the interest cost implications of their investment. In our survey, firms relied on debt, primarily bank debt, to finance most of their plant expansions. Consequently, it is likely that interest rate subsidies would be an effective means of reducing the costs of financing these investments.

However, this policy option should also be evaluated in light of the evidence discussed above relating to the effectiveness of tax stimuli on investment. Interest rate subsidies reduce the cost of capital investment similar to the cost reduction associated with accelerated depreciation, investment tax credits and tax rate reductions. If the existing incentives are of questionable value, then caution should also be accorded to interest rate subsidies.

Small Business Development Bonds

Small Business Development Bonds are a means of obtaining low cost financing for small firms. Since debt financing is the most important source of funds for the most recent plant expansion reported by our respondents, the availability of low cost financing may be crucial. Unfortunately, Small Business Development Bonds have become relatively unavailable to the firms that it is most desirable to assist. These are the small growing firms that need access to debt financing to continue their expansion.

However, the MacEachen budget introduced a restriction that Small Business Development Bonds be available only for firms in financial distress. This change makes Small Business Development Bonds a relatively unattractive method of finance. Only weak firms are eligible, and they must demonstrate their weakness to get assistance. Successful and growing small businesses will, on average, have better prospects than small firms in distress. Consequently, the limitation on these Bonds restricts them to financing firms with poorer prospects. This would seem to be a misfocussed policy. It would be more reasonable to eliminate this restriction and make the Small Business Development Bonds program available to all small businesses.

Section 5

CONCLUSIONS

The Manitoba manufacturing sector is surprisingly large for a province whose economy is seen as based mainly on agriculture and minerals. Within that manufacturing sector, there are several industries which thrive despite the lack of any obvious natural or comparative advantage. The clothing and transportation equipment industries are two of them. Our survey of these two industries aimed to reveal what kind of firms are in each sector, what caused the firms to locate in Manitoba, and what factors influence their growth in the province. The survey covered all but a few firms, so the picture we have is reasonably complete.

Both sectors consist mainly of small to medium sized, independent firms. There are a few subsidiaries, including some large ones, but the vast majority of firms are independently owned and have been so since their founding. The majority of firms were originally located in Manitoba for personal reasons rather than because of the normal economic considerations used to explain plant location. The majority of firms also carried out their most recent expansion without considering any location other than Manitoba.

The picture of firms not considering the normal economic factors in their location decisions could reflect the absence of such factors in Manitoba. We have already mentioned that there are no obvious comparative advantages for these sectors in Manitoba. There could be, in reality, a significant number of firms who are responsive to economic factors, but which have left Manitoba for other provinces or states which do offer some comparative advantages -- thereby avoiding our survey. The clothing and transportation equipment sectors have grown at close to or above the average growth rate for manufacturing as a whole, however, so it does not seem likely that our survey has missed a significant number of firms attracted elsewhere by the relative advantage of other locations.

Both industries have had a steady succession of new firms starting up since 1945. The startup process may be explained mainly by a series of spinoffs of new firms from existing firms. The firms in our survey had generated an average of almost one spinoff firm each.

The overall picture that emerges is of viable, independent, fairly small-scale industries, living principally off Canadian markets and making little use of government financial assistance programs. Scarcity of funds is not an obvious problem, though of course all of the firms would like cheaper credit.

Designing policies to assist the growth of manufacturing in Western Canada is a problem when local industries have these characteristics. This report has presented a number of policy alternatives that might be considered as means of stimulating the manufacturing sector in Manitoba. It is difficult to say whether the implications of these policies are generalizable to the other western provinces. From interviewing only two sectors within a single province, we are reluctant to venture a specific answer to this question. However, what is striking about the survey results is the importance of personal factors in the location and expansion of manufacturing firms.

In Manitoba, and presumably also in Saskatchewan, much of the population has resided in the province for several generations. There tends to be a relatively small transient population. The entrepreneurial leaven in such populations appears to be reluctant to locate anywhere else, reluctant to expand anywhere else, and tends not to spin off new firms anywhere else. Once started, therefore, the local manufacturing industry, except for the small number of firms that reach the so called "threshold" level, seems to be quite insensitive to differential incentives and relatively immobile. This may not be true of larger, multi-plant firms, but they are not what the manufacturing sector in the prairie provinces predominantly consists of.

Forty-three percent of the firms in the two sectors surveyed and an estimated 80 percent of all Manitoba manufacturing firms have fewer than 25 employees. The importance of these small firms suggests a need for fewer and simpler government programs, rather than more numerous, detailed and precisely targeted schemes. Managers of small firms do not have the time to devote to research and investigation among a smorgasbord of government offerings. Research indicates these companies favour what might be termed "neutral" programs. These would be automatically available to any qualifying business as opposed to the kind of programs presently available whereby a firm applies for a specific type of loan or grant from a particular government agency with the paper work proceeding from there. Suggestions along these lines include modifications to the tax system to provide relief to any business during its early years of operation - possibly some modification of the small business deduction, or a program to provide some tax relief or deferral on goods sold abroad, or a program to guarantee some proportion of a loan negotiated by a small or starting business from a bank or credit union, perhaps with subsidized interest - maybe some variation of the Small Business Loans Act or the Small Business Development Bond programs. The primary idea behind these proposals is that every business would compete on the same basis, that the receipt of benefits would be automatic and not at the discretion of a particular government agency, and that less time and, perhaps, expense would be involved on the part of both business and government.

APPENDIX A

Letter of Introduction to Survey of Manitoba Manufacturing Companies

July 27, 1983

Dear Sir:

The Economic Council of Canada is conducting a major study of regional development in western Canada. Part of this project involves an examination of several manufacturing industries in Manitoba. We are assisting the Council in this portion of its work by interviewing senior executives in a number of manufacturing firms.

The primary purpose of our portion of the study relates to identifying the reasons for the growth and development of the manufacturing sector in our province despite the absence of a strong natural resource comparative advantage. To this end the enclosed document outlines a number of questions you will be asked to answer. All information will be received in strict confidence and no firms will be individually identified. Upon completion of the research all respondents will receive an executive summary of our report.

One of our interviewers will be contacting you by telephone within the next few days. The entire interview will only take 10-15 minutes of your time. I realize this is an inconvenience, but hope that you will still agree to help us. Please review the questions on the enclosed material. They indicate the specific information the interviewers will be asking you to provide. Your co-operation in this regard is critical to the overall success of the project.

.../2

If you prefer that the interviewer contact another individual within your organization or that you be contacted at a particular time for your convenience, please indicate your preferences on the enclosed pre-addressed postcard and return it to the Institute.

Should you have any questions or require additional information please contact Monika Oepkes of the Institute at 474-9422 or myself at 474-8429. Your support is deeply appreciated.

Yours very truly,

Walter Good

Dr. Walter Good
Principal Investigator

WG/cw

Enclosure

APPENDIX B

Questionnaire for Survey of

Manitoba Manufacturing Companies

QUESTIONNAIRE FOR SURVEY OF MANITOBA
MANUFACTURING FIRMS

Card Number 001

Respondent Number ___ ___ ___ (5-7)

Industry

03 Rubber and Plastic Products
07 Clothing Industries
15 Transportation Equipment
19 Chemical and Chemical Products

___ ___ (9-10)

Sectors

- indicate all in which company is listed

03
162 Rubber products
165 Plastics fabricating

07
243 Men's clothing
244 Women's clothing
245 Children's clothing
246 Fur goods

___ ___ ___ (12-14)

15
321 Aircraft and aircraft parts
323 Motor vehicles
324 Truck body and trailer
325 Motor vehicle parts and accessories
326 Railroad rolling stock
327 Shipbuilding and repair
328 Boatbuilding and repair

___ ___ ___ (16-18)

19
372 Manufacturers of mixed fertilizers
373 Manufacturers of plastics and synthetic resins
374 Manufacturers of pharmaceuticals and medicine
375 Paint and varnish manufacturers
376 Manufacturers of soap and cleaning compounds
377 Manufacturers of toilet preparations
378 Manufacturers of industrial chemicals

___ ___ ___ (20-22)

Name of Respondent _____

Title of Respondent _____

If interview is terminated, please specify reason:

01 Respondent refused to cooperate
02 Company does not and has never manufactured products in Manitoba. - Terminate
03 Company no longer manufactures products in Manitoba - Terminate
04 Company is in bankrupt y or receivership. - Terminate
05 Company no longer in business. - Terminate

(69-70)

1. In what year did your company start-up manufacturing operations in Manitoba?

__ __ __ __ (24-27)

---

2. Why did the company start manufacturing in Manitoba as opposed to elsewhere?

(PROBE FOR RESPONSE . RECORD ALL REASONS MENTIONED)

1. _____ ___ ___ (29-30)

2. _____ ___ ___ (32-33)

3. _____ ___ ___ (35-36)

CODE:
- 01 Access to markets
- 02 Anticipated future growth of markets
- 03 Labour relations climate
- 04 Availability of labour
- 05 Comparative wage rates
- 06 Cost of raw materials and components
- 07 Availability of raw materials
- 08 Transportation facilities and costs
- 09 Climate
- 10 Availability of community facilities
- 11 Provincial and/or municipal tax structure
- 12 Availability of capital
- 13 Access to government technical and financial support
- 14 Personal business factors
- 15 Personal non-business factors
- 16 Other factors

---

3. At the time of start-up was the Manitoba operation:

01 an independent company? (go to a)

02 a branch plant or subsidiary of another operating company? (go to b) ___ ___ (38-39)

---

a) If an independent company, is it still an independent company?

01 Yes

02 No

___ ___ (41-42)

---

b) If a branch plant or subsidiary:

i) Where was the parent company's head office? _____ ___ ___ (44-45)

CODE: 01 in Manitoba
02 other Western Canada
03 Eastern Canada
04 United States
05 Elsewhere in the world

ii) Was the manufacturing operation performed in Manitoba unique to the firm at the time of start-up? (by unique we mean that the company did not manufacture a similar product here or elsewhere or used a different production process.)

01 Yes

02 No

___ ___ (47-48)

iii) Is it still a branch plant or subsidiary of an operating company?

01 Yes

02 No

___ ___ (50-51)

---

4. How many employees do you presently have in Manitoba

___ ___ ___ ___ (53-56)

---

5. What were the total sales for your Manitoba manufacturing operation during your most recent fiscal year? (000's of dollars)

$___ ___ ___ ___ ___ ___
(58-63)

---

6. On average, how fast have your sales grown on a percentage basis over the past 5 years (or since your first year, if that is more recent)?

___ ___ ___%
(65-67)

CARD 002

RESPONDENT NUMBER ___ ___ ___
(5-7)

---

7. What percent of your total sales are made

Within Manitoba . . . . . ___ ___ ___%
(9-11)

In Eastern Canada . . . . . ___ ___ ___%
(13-15)

In Western Canada (outside Manitoba) . . . . . ___ ___ ___%
(17-19)

In the United States (go to a) . . . . . ___ ___ ___%
(21-23)

Elsewhere in the world (go to b) . . . . . ___ ___ ___%
(25-29)

(These should total 100%)

a) Where in the United States?

1. _____ ___ ___
(29-30)

2. _____ ___ ___
(32-33)

3. _____ ___ ___
(35-36)

CODE: 01 New England
02 Middle Atlantic
03 South Atlantic
04 North Central
05 South Central
06 Mountain
07 Pacific

b) Where elsewhere in the world?

1. _____ ___ ___ (38-39)

2. _____ ___ ___ (41-42)

3. _____ ___ ___ (44-45)

CODE: 01 Mexico & Central America
02 South America
03 Western Europe
04 Eastern Europe & U.S.S.R.
05 Middle East
06 Africa
07 Central Asia
08 Far East
09 Australia & New Zealand
10 Other

---

8. Has your manufacturing capacity in Manitoba been expanded within the past five years?

01 Yes (go to a)
02 No

___ ___ (47-48)

a) If yes,

i) By how much? (in percent) ___ ___ ___% (50-52)

ii) Did you consider expansion outside the Province?

01 Yes (go to iii)
02 No

___ ___ (54-55)

iii) If yes, why did you decide to proceed within the Province?

(PROBE FOR RESPONSE. RECORD ALL REASONS MENTIONED)

1. _____ ___ ___ (57-58)

2. _____ ___ ___ (60-61)

3. _____ ___ ___ (63-64)

CODE:
01 Access to markets
02 Anticipated future growth of markets
03 Labour relations climate
04 Availability of labour
05 Comparative wage rates
06 Cost of raw materials and components
07 Availability of raw materials
08 Transportation facilities and costs
09 Climate
10 Availability of community facilities
11 Provincial and/or municipal tax structure
12 Availability of capital
13 Access to government technical and financial support
14 Personal business factors
15 Personal non-business factors
16 Other factors

CARD 003

RESPONDENT NUMBER ___ ___ ___ (5-7)

---

9. Has your manufacturing capacity outside Manitoba been expanded within the past five years?

01 Yes (go to a)
02 No ___ ___ (9-10)

a) If yes,

i) By how much? (in percent) ___ ___ ___% (12-14)

ii) In what province or country? _____ ___ ___ (16-17)

CODE: 01 Other Western Canada
02 Eastern Canada
03 United States
04 Elsewhere in the World

iii) Why did you expand there instead of in Manitoba?

(PROBE FOR RESPONSE RECORD ALL REASONS MENTIONED)

1. _____ ___ ___ (18-19)

2. _____ ___ ___ (21-22)

3. _____ ___ ___ (24-25)

CODE: 01 Access to markets
02 Anticipated future growth of markets
03 Labour relations climate
04 Availability of labour
05 Comparative wage rates
06 Cost of raw materials and components
07 Availability of raw materials
08 Transportation facilities and costs
09 Climate
10 Availability of community facilities
11 Provincial and/or municipal tax structure
12 Availability of capital
13 Access to government technical and financial support
14 Personal business factors
15 Personal non-business factors
16 Other factors

10. a) What was the approximate cost of your most recent expansion in manufacturing capacity (000's of dollars)?

$___ ___ ___ ___ ___ ___ (27-32)

b) What year did this expansion take place?

___ ___ ___ ___ (34-37)

c) Where did the funds come from for this expansion? How much from each source (000's of dollars)?

Head Office $___ ___ ___ ___ ___ ___ (39-44)

Retained Earnings $___ ___ ___ ___ ___ ___ (46-51)

Government Assistance Programs $___ ___ ___ ___ ___ ___ (53-58)

CARD 004

RESPONDENT NUMBER ___ ___ ___ (5-7)

Additional Equity Capital (go to ii)

$___ ___ ___ ___ ___ ___ (9-14)

Increased Debt (go to i)

$___ ___ ___ ___ ___ ___ (16-21)

i) What sources of debt?

1. _____ ___ ___ (23-24)

2. _____ ___ ___ (26-27)

CODE: 01 Chartered banks
02 Credit unions
03 Insurance companies
04 Other financial institutions
05 Shareholders
06 Others

ii) What sources of equity?

1. _____ ___ ___ (29-30)

2. _____ ___ ___ (32-33)

CODE: 01 Parent firm
02 Present shareholders
03 Family and friends
04 Other private stock offering
05 Public stock offering
06 Other

---

11. What was the most recent technological change introduced into your operation? _____

_____

a) When did you make this change? ___ ___ ___ ___ (35-38)

b) To the best of your knowledge when was this innovation first available to the industry? ___ ___ ___ ___ (40-44)

---

12. In relation to other firms producing similar products within Manitoba do you think the level of technology used in your plant is:

CODE: 01 More Advanced
02 The same
03 Less Advanced

___ ___ (46-47)

---

13. In relation to the average for the industry at large do your think the level of technology used in your plant is:

CODE: 01 More Advanced
02 The same
03 Less Advanced

___ ___
(49-50)

---

14. To the best of your knowledge has the presence of your firm contributed to the establishment of other firms within the province either by providing a market for these firms or spinning off personnel to start these firms?

01 Yes (go to a)
02 No

___ ___
(52-53)

a) If yes, how many are in manufacturing?

___ ___
(55-56)

---

15. Did your own manufacturing operations start as a spinoff of some other firm's operations in Manitoba?

01 Yes (go to a)
02 No

___ ___
(58-59)

a) Was that other firm a:

CODE: 01 Manufacturing firm
02 A wholesaler or retailer
03 Other: _____

___ ___
(61-62)

---

16. What do you feel will be the annual percentage growth rate over the next five years:

a) Of your firm? ___ ___ ___% (64-66)

b) Of your industry as a whole? ___ ___ ___% (68-70)

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17. Does your industry have a provincial association or organization?

01 Yes (go to a)
02 No

___ ___ (72-73)

a) If yes,

i) How has it contributed to the success of the industry in this province?

_____

_____

CODE:
01 Employee recruitment and training
02 Lobbying activities
03 Compilation and sharing of industry statistics
04 Shared information on potential customers and markets
05 Comparative productivity studies
06 Other

___ ___ (75-76)

THANK YOU VERY MUCH FOR YOUR COOPERATION